

TARIFF COMMISSION
GOVERNMENT OF INDIA

VIEW OF THE AUTOMOBILE ANCILLARY INDUSTRY

BOMBAY

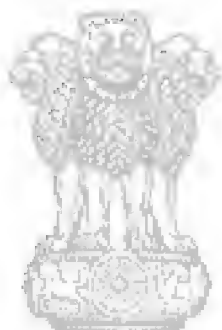
1973

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S. S. SAXENA



सत्यमेव जयते

GOVERNMENT OF INDIA
(BHARAT SARKAR)
MINISTRY OF COMMERCE
(VANIJYA MANTRALAYA)

New Delhi the 29th March, 1974.

RESOLUTION

Tariffs

No. 11(1) Tar/73.—The Tariff Commission has submitted its Report (1973) on the Review of the Automobile Ancillary Industry as required in the Government's Resolution No. 8(1)-Tar/68, dated the 9th November, 1968. The Commission's recommendations and the Government's decisions thereon are given in the Table below:—

TABLE

Sl. No.	Recommendation of the Tariff Commission	Decision of the Government
1	2	3

Data relating to Automobile Ancillary Industry:

- | | |
|---|--|
| <p>1. There is no single Governmental authority which is in a position to furnish comprehensive data on the automobile ancillary industry as a whole. In the small scale sector the position is worse: there does not appear to be even a systematic enumeration of the units established. This is a serious lacuna in the present arrangement to ensure proper development of the industry. Government may, therefore, urgently examine this problem and consider</p> <p>(a) entrusting the function of coordinating all important data regarding the organised sector of the industry to one suitable agency;</p> | <p>The recommendation is being examined with a view to taking appropriate action, by the Ministries-Heavy Industry and Industrial Development.</p> |
|---|--|

- (b) entrusting to the Development Commissioner. Small Scale Industries, the responsibility of regularly undertaking periodical census of the units established in the small scale sector and collect all the relevant data, such as capacity, production, number of persons employed, etc., regarding them; and
- (c) ensuring, through a Central agency, coordination and scrutiny of all the data collected in the organised and small scale sectors, so that a complete picture of the development of the ancillary industry is available at one source.

Capacity:

2. The information on the licensed and installed capacities of the automobile ancillary units, furnished to the Commission showed that in the case of a large number of units, the licensed capacities were lower than the installed capacities. The Directorate-General of Technical Development should, therefore, urgently undertake the work of technically assessing and specifying itemwise, the licensed and installed capacities of ancillary manufacturing units in the industry.

Government have taken note of this recommendation for appropriate action by the Department concerned.

Demand and current production:

3. If past experience of the performance of the industry is any guide, the demand estimates for ancillary items for 1978-79, made by the Working Group of the Task Force, set up under the Planning Commission, would appear to be on the optimistic side. There are constraints of production which have to be taken into account. The Commission would, therefore, like to emphasise the need for a cautious approach in estimating the targets of production.

Government have taken note of this recommendation.

1	2	3
	<p>4. There was unhealthy competition in this industry, due mainly to the indiscriminate establishment of small units in a number of states without proper assessment of the demand for their products and the ability of the units to face competition. Even if it were not possible to limit the number of ancillary producers by any governmental action, promotional agencies like the small Industries Service Institutes and State Directorates, should, with a view to discouraging ruinous, unhealthy competition among small-scale units, bring out literature, circulars, etc. which would give factual and realistic appraisal of supply and demand situation and survival prospects, in different regions, for the guidance of the prospective small scale units.</p>	<p>Government have taken note of this recommendation for implementation as far as possible. The attention of the State Directors of Industries and the small scale producers of ancillaries and their associations, is also drawn to this recommendation.</p>
	<p>5. In order to help the proper assessment of the progress of indigenisation, the automobile components may be classified broadly under the categories indicated in paragraph 29-15 of the Commission's Report (1968) on the continuance of protection to the Automobile Industry, reproduced below :</p> <p>(i) Components, both finished and semi-finished, which are not likely to be produced in the country the next five years;</p> <p>(ii) Components, both finished and semi-finished, which are partly being manufactured in the country and are partly being imported owing to inadequate production or non-availability of the requisite designs and specifications, or lack of volume of requirements;</p> <p>(iii) Components which are being manufactured in the country in the requisite quantities.</p>	<p>Government have taken note of this recommendation for appropriate action.</p>

It would be desirable if the Directorate General of Technical Development could maintain more detailed information in respect of category (ii) above so as to show separately imports owing to (a) inadequate production and (b) non-availability of requisite designs and specifications; and (c) lack of volume of requirement.

Quality and Standards :

6. In spite of the fact that most of the manufacturers of ancillaries in the organised sector have, or have had the benefit of foreign technical collaboration and also have the advantage of possessing the necessary testing equipment of their own, the ancillaries produced in the country do not conform to the expected quality standards. The Commission had drawn pointed attention to this aspect in its earlier report, but it has not received the attention it deserves. The products produced in the small scale sector are still worse. The mushroom growth of units in this sector and the resulting scramble among them for the available market has also contributed substantially to the lack of quality consciousness on their part. The Commission recommends following measures to remedy this situation :

- (a) in the organised sector, the concerned Associations, viz., the All India Automobile and Ancillary Industries Association, and the Association of Indian Automobile Manufacturers should consider that steps they can take to ensure that the members conform to the quality standards acceptable to all;

Attention of the respective Associations and producers is drawn to these recommendations and Government, have taken note of parts (b) and (c) of the recommendation and will take steps to implement them as far as possible. Attention of Indian Standard Institution also is drawn to part (b) of the recommendation. If Government finally decides to constitute the Committee as in Recommendation (c) this Committee will look into Recommendation (4) also and suggest appropriate action.

(b) in the small scale sector, the Indian Standards Institution should on a priority basis, take up the question of laying down standards for items reserved for the small scale sector and

(c) a small Committee consisting of the representatives of the All India Automobile and Ancillary Industries Association, Association of Indian Automobile Manufacturers, the Small Industries Service Institutes, and the Federation of Associations of small Industries of India, should be constituted. This Committee could meet at regular intervals to exchange views and discuss the difficulties of the industry, including those relating to quality problems. This would enable the industry to identify specific hurdles to be overcome and for corrective steps to be taken. This Committee could also work out a plan for setting up quality testing facilities at certain central places for the benefit of small scale units.

Prices :

7. If any scheme of equitable distribution of raw materials at reasonable prices could be evolved it would help to bring down the prices of ancillaries significantly; but it is obvious that a long-term stability of prices of ancillaries will continue to be difficult of achievement unless production also is brought up to be in step with demand in place of there being chronic shortage of certain items as at present.

Noted for implementation to the extent possible. The attention of the industry is also drawn to the latter part of the recommendation.

Exports :

8. There is no point in going for capacity expansion in a big way in respect of ancillary industry with a view to creating surplus capacity for export purposes, without creating a stable base for it in the domestic market. The approach towards the promotion of exports will have to continue to be selective. However, once some realistic export targets and incentive policies are framed, it is necessary to ensure that the policies laid down are actually implemented and the targets attained. It would, for instance, be desirable to undertake a periodical re-examination of the export incentive policies to take note of increasing cost of production of exportable components and to review the procedures for claiming duty drawback to make them simple and expeditious.

The recommendation has been noted. The scope available for export of automobile ancillaries and the need for gearing production for export and the measures of assistance required for this purpose, will be examined in detail in consultation with the Ministries and authorities concerned.

ORDER

ORDERED that the Resolution be published in the Gazette of India and a copy thereof communicated to all concerned.

(MISS R. MUZUMDAR)

Joint Secretary to the Govt. of India.

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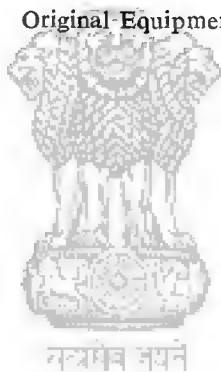
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GLOSSARY

D.G.T.D.	.	.	.	Directorate General of Technical Development.
D.C.S.S.I.	.	.	.	Development Commissioner for Small Scale Industries.
I.S.I.	.	.	.	Indian Standards Institution.
S.I.S.I.	.	.	.	Small Industries Service Institute.
A.I.A. & A.I.A.	.	.	.	All India Automobile and Ancilliary Industries Association.
A.I.A.M.	.	.	.	Association of Indian Automobile Manufacturers.
O.E. price	.	.	.	Original Equipment price.



REVIEW OF THE AUTOMOBILE ANCILLARY INDUSTRY

1.1. In the Report on the continuance of protection to the Automobile Industry (1968), the following recommendation made by the Commission was accepted by the Government:

“The automobile ancillary industry is an important adjunct of the main automobile industry and has begun to grow steadily more recently. Its development needs therefore, to be carefully watched. A review of the industry again after a period of two years is, therefore, proposed.”

Pursuant to this decision, we initiated the present Review in July, 1971.

1.2. A preliminary letter eliciting certain essential information on capacity, production and prices of various ancillaries was issued to all known ancillary manufacturers in the organised sector as early as on 31st July, 1971. This was followed by a questionnaire addressed to those who replied to that letter and to other known units in the organised as well as in the small scale sectors. The main automobile manufacturers, other consumers, Government Departments such as Directorate General of Technical Development (D. G. T. D.), Development Commissioner for Small Scale Industries (D. C. S. S. I.), the All India Automobile and Ancillary Industries Association (A. I. A. & A. I. A.) etc. were also addressed for eliciting information on various aspects of the Review. A list containing the names of parties whom we had addressed is given in Annexure-A. We, however, regret to record that the response to our questionnaires, particularly from the manufacturers of the organised sector, was very poor. Even the representative Association of the Industry viz., A. I. A. & A. I. A. did not submit its reply till July, 1973. This not only resulted in considerable inconvenience in conducting a proper review but has

also delayed the submission of the Review to the Government. In view of the poor response, we decided to send for all the interests concerned, hold joint discussions with them and finalise the Review. Detailed lists of all the points to be discussed, on the occasion were also sent to all concerned. The discussions were held on 20th July, 1973. A list showing the names of persons who attended the joint discussions is at Annexure B.

1.3. Just a few days before the joint discussions, the A. I. A. & A. I. A. submitted a copy of the Report on Automotive Ancillaries prepared by the Working Group appointed by the Task Force on Transport and Allied Equipment Industries appointed by the Steering Group set up under the Planning Commission. This purported to be a reply to our questionnaire. The Association explained that it was associated with the Working Group and did not consider it necessary to submit a separate reply as the Working Group Report has dealt extensively with most of the points arising out of the questionnaire sent out by us to the individual ancillary manufacturers.

1.4. A review of the progress as well as of protection to the Automobile Industry as a whole has been undertaken by us in pursuance of the Government decision contained in the Ministry of Commerce Resolution No. 8(1)-Tar/68 dated 9th November, 1968 to the effect that the review should be undertaken in 1973. In view of this, we have confined the present Review to the following principal aspects of the Ancillary industry:

- (i) The present position of the industry;
- (ii) Expected demand and future plans of expansion;
- (iii) Behaviour of prices;
- (iv) Quality of ancillary products;
- (v) Difficulties of small scale sector; and
- (vi) Foreign trade (Imports and Exports).

Certain related aspects such as availability of raw materials, indigenisation and so on have also been touched upon in this context.

2.1. Automobile ancillaries are manufactured by the following sectors:

- (i) The vehicle manufacturers numbering eight;
- 2. The present position of the Industry. (ii) automobile ancillary manufacturers registered with the D.G.T.D.; and
- (iii) small scale manufacturers.

2.2. The number of units :

2.2.1. Large scale ancillary units are registered with the D. G. T. D. Since the ancillaries manufactured by the units are functionally heterogeneous, the units are registered with different Directorates of the D. G. T. D. such as the Automobile Directorate, Rubber Directorate, Light Mechanical Engineering Directorate, Electrical Directorate and so on. According to the D. C. S. S. I., there are nearly a thousand units in the small scale sector engaged in the production of various ancillaries but no census has so far been completed by him as precise and detailed information regarding these units is not available. The term 'automobile ancillaries' also covers such activities as die-casting, sheet metal pressing, body building and so on. The cumulative result has, therefore, been that it has not been found possible to state with any exactitude the number of units which are engaged in the production of automobile ancillaries. Analysing the information on this point received from different sources, particularly the different Directorates of the D. G. T. D. and A. I. A. & A. I. A., we have been able to estimate that the number of units in the organised sector would be around 190. In addition, the vehicle manufacturers also produce some automobile ancillaries. These units, together with about a thousand in the small scale sector cater to the original equipment needs as well as the replacement needs of the automobile industry.

2.2.2. There is no single Governmental authority which is in a position to furnish comprehensive data on the automobile ancillary industry as a whole. We consider this to be a serious lacuna in the present arrangements to ensure

proper development of the automobile and ancillary industries. We discussed this issue with the representatives of the D. G. T. D. which is concerned with the registration of the manufacturing units in the large-scale organised sector. We were told that the Automobile Directorate of the D. G. T. D. could serve as a co-ordinating agency to collect and maintain the necessary data regarding the various items of automobile ancillaries including those which are looked after by other Directorates. *We suggest that the government may examine this problem urgently with a view to entrusting the function of co-ordinating all important data regarding the organised sector of the industry to one suitable agency.*

2.2.3. The state of affairs in the small-scale sector appears to be quite confused. There does not appear to be even a systematic enumeration of the units established in the small-scale sector. We were told by the representatives of the D. C. S. S. I. that that organisation was mainly concerned with rendering technical, managerial and financial consultancy service and since the small-scale units were registered with the State Directorates of Industries and not with them, it was difficult for them to give an accurate picture of the development of this sector. *We suggest that the D. C. S. S. I. should, with the help of the State Governments, regularly undertake periodical census of the units established in the small-scale sector and collect all the relevant data such as capacity, production, number of persons employed and so on, regarding them. We further suggest that the government may consider the desirability of ensuring through a central agency co-ordination and scrutiny of all the data collected by the D. G. T. D. and the D. C. S. S. I. so that a complete picture of the developments in the automobile ancillary industry is available at one source.*

2.3. Capacity :

On the basis of the information furnished by the D. G. T. D., a statement showing the number of units licensed for the manufacture of various automobile ancillaries and those in production is given at Annexure C. The Annexure also shows total licensed and installed capacity for all the units against each item. It would be seen that for 32 items there is only one unit each in production, for 15 items two

units each and for another 17 items three units each. For the remaining items there are more than three units in production. In the case of quite a large number of ancillary items, the licensed capacities are lower than the installed capacities. It was explained to us by the representative of the D. G. T. D. that the figures of licensed capacity were based on single shift as per the licensing system in vogue. However, when the units were allowed to work more than one shift, their production exceeded the licensed capacities. It was also stated that the installed capacities indicated in the Annexure show the highest production achieved by the units during the last few years and that their licensed capacities were being revised on the basis of the highest production. The D. G. T. D.'s representatives also made available to us a copy of the latest list showing unit-wise licensed and installed capacities of industries has been emphasised by the found that such revisions of capacities, as claimed, had been made only in respect of about a dozen items and that in many cases the anomaly continued to exist. The desirability of technically assessing and specifying the licensed as well as installed capacities of industries has been emphasised by the Commission in a number of its Reports, more particularly, in paragraphs 6.3 to 6.8 in the Report on the continuance of protection to Automobile Industry (1968). These observations are equally applicable to the automobile ancillary industry. *We, therefore, recommend that the D. G. T. D. should urgently undertake the work of technically assessing and specifying item-wise the licensed and installed capacities of ancillary manufacturing units in the industry.*

2.4. Production :

2.4.1. The details of production of various components in terms of quantity and value classified under broad groups is given in Annexure D. This is based on the information published by A. I. A. & A. I. A. The production of certain items like engine valves, timing chains, voltage regulators, spark plugs, clutch assembly, clutch plates, steering gears, wheels, leaf springs etc. has shown a more or less continuously rising trend. However, there have been fluctuations in the production of certain components during the years 1970-71 and 1971-72. Production of pistons, piston rings, cylinder liners, fuel pumps (single cylinders), filters,

filter-elements etc. has been showing a falling trend since 1970-71. The production of piston pins, gaskets, fuel pumps (nozzle holders), headlights etc. had decreased in 1970-71 but has picked up again in 1971-72. On the other hand, the production of a number of items like flywheel ring gears, oil lubricating rotor pumps, fan belts, engine mountings, generators, brake drums, brake linings, brake hoses, electric horns, king pins and flasher units has registered a decrease in 1971-72.

2.4.2. Fall in production of fuel injection equipment during 1970-71 has been attributed mainly to slump conditions in diesel engine industry in that year and that in pistons, piston rings, piston pins, king pins and flywheel ring gears to labour troubles in certain factories and financial and management difficulties experienced by some other units. The fall in production in 1971-72 is also attributed to these factors and in addition to power cuts in some States, raw material shortage and inadequacy of import licences.

3.1. A statement showing demand for important ancillaries for the year 1973-74 as estimated by the Development Council (on Automobiles, Ancillaries, Tractors etc), and by the Working Group of the Task Force under the Planning Commission for the years 1973-74 and 1978-79 (i.e. the last year of the 5th Five Year Plan) is at Annexure-E. It will be seen that the estimates of the Development Council for 1973-74 are consistently higher than those of the Task Force. The Working Group has observed "..... for very many items other than those which were found to be in shortage, actual production is far below the estimated demand yet there was no complaint of shortage. This would seem to suggest that the demand estimates for 1973-74 were inflated and not real".

3.2. The table on the following page shows the latest available figures for both the licensed and actual capacity and production of certain items during 1971-72 along with the demand estimates made by the Working Group for the years 1973-74 and 1978-79. The estimates of demand for

the last year 1978-79 of the 5th Plan are based on certain assumptions regarding expansion and new schemes for various categories of vehicles during the 5th Plan. It will be seen that in respect of most of the items, the actual production during the year 1971-72 was substantially lower than the estimated demand for 1973-74. In respect of 28 items, demand during 1978-79 is expected to increase by more than 100% over 1971-72 production and out of these in the case of no less than 17 items, the expected increase is likely to be well over 200%. A part of the expected increase is of course due to the fact that the ancillary industry caters to the needs not only of automobile industry but also to those of tractor, earth moving and other mobile equipment manufacturing industries.

3.3. The Government lifted in October 1969 the ban imposed by it on the establishment of new units for the manufacture of most of the ancillary items as the policy of having such a ban had resulted in a shortage of certain items like piston assembly, fuel injection equipment, carburettors etc. Under the liberal licensing policy initiated in February 1970, it is understood that a number of letters of intent have been issued not only for setting up of new units but also for expansion of some of the existing units in respect of items not reserved for small scale units. However, restrictions applicable to manufacturers belonging to large industrial houses or with capital investment of more than one crore or having a dominant share of the market or with foreign holdings, continue.

3.4. On the basis of its estimates of expected demand during 1978-79, the working group has come to the conclusion that by the end of the 5th Plan, the ancillary production will have to be tuned up for an annual gross output of Rs. 700 crores as against about 127 crores in 1971-72 and estimated 170 crores in 1973-74 (i.e. the end of the 4th Plan period). Further, on the assumption of an average ratio of 1:2 of investment to turn-over, it considers that a net additional investment of Rs. 278 crores comprising Rs. 56.5 crores in **land and building** and Rs. 221.5 crores in **plant and machinery** would be necessary to meet the expected demand.

Statement showing capacity production and demand of certain important automobile ancillaries

(In '000 number)

Item	Capacity		Production in 1971-72	Demand as estimated by Working Group		% increase of	
	Licensed	Installed		1973-74	1978-79	Col. (5) over Col. (4)	Col. (6) over Col. (4)
1	2	3	4	5	6	7	8
1. Pistons	3,480	2,520	1,739	3,200	6,450	84.0	270.9
2. Piston Rings	25,500	24,500	17,180	28,000	38,000	63.0	121.2
3. Piston (Gudgeon) Pins	4,003	3,073	2,239	3,200	6,450	42.9	188.1
4. Engine valves	7,300	5,400	4,705	6,700	17,470	42.4	165.4
5. Valve Guides	1,000	480	265	..	7,570	..	2,756.6
6. Carburettors	176	176	67	250	1,070	273.1	1,497.0
7. Fuel Injection equipment							
(i) Nozzles	2,315	2,170	2,252	5,800	7,250	157.5	221.9
(ii) Nozzle holders	606	786	629	800	1,246	27.2	98.1
(iii) Pump Elements	2,177	2,182	2,644	5,400	6,650	104.2	151.5
(iv) Delivery Valves	1,790	2,314	2,959	5,400	6,650	124.7	124.7
(v) Multi-cylinder pumps	77	82	91	90	190	(-)-1.1	108.8
(vi) Single-cylinder pumps	184	334	259	400	335	54.4	29.3
8. Filters (Air, fuel and oil)	495	622	311	900	2,941	189.4	845.7
9. Filter Elements /Inserts	4,080	6,128	1,064	..	16,595	..	1,459.7
10. Fly-Wheel(Ring gears)	102	102	71	140	415	97.2	484.5

11. Radiators	.	.	.	.	124	250	149	160	465 (includes Radiator cores)	7.4	212.1
12. Starter Motors	.	.	.	.	163	134	194	180	415	(-)-7.2	113.9
13. Generators	.	.	.	.	195	149	137	180	415	31.4	202.9
14. Voltage Regulators	.	.	.	.	281	303	417	500	910	19.9	118.2
15. Distributors	.	.	.	.	118	146	68	74	220	8.8	223.5
16. Ignition Coils	.	.	.	.	195	371	316	..	340	..	7.6
17. Fly-Wheel Magnets	.	.	.	.	140	140	40@	165	823	312.5	1,062.5
18. Spark-Plugs	.	.	.	.	2,760	3,336	3,531	3,500	7,660	(-)-10.9	116.9
19. Clutch Assembly	.	.	.	.	332	233	180	350	480 excluding 2 & 3 wheelers	94.4	166.7
20. Propeller shafts	.	.	.	.	200	200	91	175	400	92.3	339.6
21. Universal joint crosses	.	.	.	.	180	180	239	..	2,110	..	782.8
22. Steering gears	.	.	.	.	20	60	34	140	470	311.8	1,282.3
23. Wheels	.	.	.	.	620	620	790	750	1,913	(-)-5.1	142.1
24. Electric Horns	.	.	.	.	477	731	295	750	2,245	154.2	660.3
25. Wiper motors	.	.	.	.	180	202	..	210	400	..	..
26. Head Lamps	.	.	.	.	948	1480	380	..	1,930	..	487.9
27. Other Lamps	.	.	.	.	.	.	415	..	3,625	..	773.5

@ As reported by D.G.T.D.

Source : (i) A.I.A. & A.I.A. (Cols. 4 to 6)

(ii) D.G.T.D. (Cols. 2 & 3)

3.5. The Government would no doubt take into account these estimates of the Working Group for arriving at the final targets of production for ancillary industry at the end of 5th Five Year Plan. *We would, however, like to emphasise the need for a cautious approach in this respect. If past experience of the performance of the industry is any guide it appears that the demand estimates of the Working Group for the year 1978-79 may turn out to be optimistic. Apart from this, the industry may also have to contend with other constraints such as availability of raw materials of requisite, quality at the right time and their rising prices.*

3.6. The raw materials required by the industry are ferrous and non-ferrous metals and some non-metallic items like rubber, chemicals, plastics etc. In the ferrous group, steel is the most important item as carbon alloy and tool steels together constitute more than 50 per cent of the total raw materials required by the industry. In view of their serious shortage, very high prices and the inability of suppliers to adhere to any time schedule in respect of the supply of these and some other important raw materials like aluminium, the Industry has suggested the establishment of 'Raw Material Banks' at different centres which could under some central organisation, rationalise the distribution of scarce raw materials on the basis of laid down priorities. This proposal has been further touched upon in paragraph 4.8.

4.1 A study of prices of automobile ancillaries is being set with some difficulties. The number of ancillaries produced is quite large. Moreover, for each item a manufacturer has several specifications. Prices of the same item with same specifications only are comparable. The ancillary manufacturers were requested to furnish the selling (both O. E. and replacement) prices of various ancillaries for the period 1968 to 1972. The information received from manufacturers has been tabulated in different Annexures. Annexure F shows prices of important items classified under different groups for the period 1968 to 1972 and also the lowest (L) and highest (H) quotations for the

4. Behaviour of prices

given type of item*. Annexure G shows the O. E. prices of some items (adopted by the Commission for costing in the 1968 Report on ancillary prices) for the period and the percentage variation in the prices of each item at the end of the period. Annexure H shows the difference between O.E. and replacement prices at both the lowest and the highest levels for the same type of item.

4.2. From the study of these annexures, the principal features of the price situation as obtaining in the ancillary industry during the five year period 1968-72 can be summarised as follows:—

- (i) Both O.E. and replacement prices of almost all the ancillaries have increased during the last five years. The increase in the prices has been between 5.4 per cent in the case of 'propeller shaft' to 67.5 per cent in the case of 'wheels'. However, substantial increase has been confined only to a few items like 'clutch assembly', 'distributors', 'wiper motors', 'wheels' etc.
- (ii) There has been a considerable difference between O. E. and replacement prices especially at lower (L) levels in respect of certain important components.

4.3. The range of price variation for different specifications has been as under†:—

Components	Range of variation of different specifications expressed in percentages
Oil Pump	13.5
Clutch Assembly	33.8 to 60.3
Radiator	7.7 to 36.3
Starter	31.5 to 41.6

The lowest and the highest questions are for the same item (sny inlet valve) but for different specifications use for different types of vehicles.

*For details— See Annexure - G. Components are those which wear costed for the purpose of 1968 Report).

Components	Range of variation of different specifications expressed in percentages
Distributors	46.9 to 56.2
Dynamos	25.0 to 40.4
Regulator	13.8 to 18.5
Head Lamp	6.1 to 32.0
Wiper Motor	35.1 to 47.0
Propeller shaft	5.4 to 22.3
Brake Assembly	19.0 to 35.5
Wheels	47.5 to 67.5

4.4. The rise in prices has been attributed to the cumulative effect of the increase in the prices of both indigenous and imported raw material including steel and copper, increase in excise and custom duties and increase in wages. We have been told that these factors had a greater impact in the case of items like clutch assembly, distributors, wheels etc. for which the rise in prices has been relatively more substantial.

4.5. The following table gives the percentage difference in each year from 1968 to 1972 between the O. E. prices and the replacement prices for certain ancillary components at L and H levels.

Ancillary Item	Differences between O.E. and Replacement Prices (as on 1st January) expressed in percentages				
	1968	1969	1970	1971	1972
1	2	3	4	5	6
<i>Low range price (L)</i>					
1. Clutch Assembly	260.5	270.9	295.0	254.0	250.9
2. Radiators	52.9	..	..	..	..
3. Starter	177.6	177.6	177.3	115.7	..
4. Generators/Dynamos	122.0	122.0	121.3	74.2	..

	1	2	3	4	5	6
5. Distributors . . .	249.4	249.4	246.3	159.3	..	
6. Regulators . . .	139.0	139.0	137.1	118.4	..	
7. Head Lamp . . .	212.7	212.7	233.3	197.3	..	
8. Propeller Shaft . .	200.0	200.0	165.7	165.7	172.2	
9. Wheels	123.1	123.1	140.0	160.0	118.8	
<i>High range price (H)</i>						
1. Clutch Assembly . .	73.6	71.2	55.2	75.0	75.0	
2. Radiators	40.0	74.0	70.9	90.6	..	
3. Starters	81.8	81.8	86.0	69.5	..	
4. Generators/Dynamos	82.2	82.2	86.5	76.7	..	
5. Distributors . . .	251.6	251.6	279.3	153.7	..	
6. Regulators	131.5	131.5	133.9	133.9	..	
7. Head Lamp	188.3	188.3	206.7	193.6	..	
8. Propeller Shaft . .	70.5	70.5	82.9	82.9	84.1	
9. Wheels . . . . .	..	12.6	54.0	54.0	52.9	

4.6 The O. E. prices are generally lower than the replacement prices all over the world. We were told that a number of reasons are responsible for this phenomenon. O. E. supplies are made in bulk whereas replacement sales are often in terms of single units. Secondly, whereas O. E. sales are a point to point sales at times even without packing, the replacement sales take place at multiple points in all parts of the country and involve not only packing of each component separately but also agent's/dealer's or sub-dealer's profit margin. Thirdly, the replacement trader has a higher element of inventory cost of maintaining stocks in anticipation of relatively more uncertain demand and is also required to pay excise duties which are not applicable in respect of O. E. sales. Lastly, the ancillary manufacturer, who is selling ancillaries to both O. E. manufacturers and replacement purchasers, can in replacement market reap the benefit of a quality stamp. Difference between O. E. and replacement prices also depends upon whether the concerned ancillary items are fast moving or slow moving. In the case of fast moving items like gaskets, spark-plugs etc., the difference is quite large as the O. E. prices are relatively

lower than the O. E. prices for slow moving items like starter motor etc. Apart from these general reasons, in India, the difference is also partly attributed to the fact that control over the prices of automobiles naturally restrains any rise in the prices of O. E. ancillaries more directly than in the prices of replacement ancillaries.

4.7. Though replacement prices, for reasons indicated, are generally higher than O. E. prices, the actual differences between the two at any given time may be unreasonably large. There are general complaints from common consumers that replacement prices are too high and that the manufacturers are exploiting the general shortage of spare parts. We desired to evaluate whether the difference prevailing between O. E. and replacement prices for important items were reasonable. This has not been possible so far on account of the paucity of the available price data of ancillaries and in the absence of regular costing of some of the important ancillary items. We propose to look into the this aspect more closely during the course of our review of the automobile industry.

4.8. We understand that the ancillary prices are regulated as a result of the procedures prescribed by the Government for calculating the list prices to the consumer. Under the latest revised Order (*vide* Ministry of Industrial Development letter No. 5(14)/71-A.E. Ind (I) dated 25th October 1971), the list price to the consumer of motor vehicle parts both imported and indigenously manufactured, whether fast moving or slow moving, should not exceed 100% over the c.i.f. cost of the particular part. In the case of indigenously manufactured parts, the c.i.f. cost of the part is c.i.f. price of the corresponding imported part. We were told that this was a very loose scheme of regulation and not quite effective. One reason that was repeatedly put forth for the increase in the prices of ancillaries was the continuous rising trend in the prices of raw materials essential for their production. Some of the representatives of the A. I. A. & A. I. A. suggested the establishment of 'Raw Material Banks' at principal centres to stock essential raw materials and sell them at reasonable prices. *It is certainly desirable that the manufacturers should not have to purchase their raw mate-*

rials at black market prices and it appears to us that if any scheme of equitable distribution of raw materials at reasonable prices could be evolved it would help to bring down the prices significantly; but it is obvious that a long term stability of prices of ancillaries will continue to be difficult of achievement unless production also is brought up to be in step with demand in place of there being chronic shortages of certain items as at present.

5.1. Though ancillary manufacturers, both in organised and small-scale sectors, claim that the quality of ancillaries produced in India compares favourably with those manufactured in any developed country, the consumers of automobile ancillaries as well as the actual users of vehicles have repeatedly been complaining about their deteriorating quality. The Report of the Working Group of the Task Force with which the representative Association (A. I. A. & A. I. A.) of the organised sector of the ancillary industry was associated, has conceded that "..... judged from the quality performance of the Indian Automobiles, there does seem to exist areas which are causing considerable damage to the overall quality image of the automobile today. The Working Group feels that in the interest of putting out a vehicle that can endure a reliable performance and safety test, sufficient training and education for quality control at all stages of production should be given supreme consideration by all automobile assembly and ancillary units."

5.2. The Motor Car Quality Enquiry Committee (generally known as Pande Committee) which had gone into the details of this question has found that ".....by and large, the complaints against many of the ancillary manufacturers producing goods below the accepted standards are not without justification" and had made a number of recommendations in this regard. Some of the important recommendations of the Committee were:—

- (i) Statistical quality control methods should be employed from the inspection of the incoming raw materials and sub-components through the assembly lines and right up to the finished products.

- (ii) Each unit should have adequate testing facilities for all raw materials and components. Alternatively, where possible, group of ancillary units should establish testing facilities for use by all of them.
- (iii) All material should be accepted after proper inspection and testing and not on the basis of previous supplies or brand names.
- (iv) A proper system of collection of field data with regard to the performance of their components should be evolved so that information regarding complaints defects and failures are fed back to the producer with a view to analysing their cause and also for taking corrective measures.
- (v) The All India Automobile and Ancillary Industries Association should devise ways and means to make its constituents observe the code of conduct evolved by it under pain of being disaffiliated under public notification if there is a breach of it by any producer.

5.3. The Commission too, had drawn pointed attention to these problems in its Report on the Fair Selling Prices of Automobile Ancillaries (1968) in paragraphs 13.1 to 13.6.2 and indicated that although it was the responsibility of the automobile manufacturers to ensure that the parts used met their specifications, it did not absolve the ancillary manufacturers of their responsibility in ensuring a uniform and acceptable standard of quality.

5.4. It appears to us that this important aspect, which is ultimately linked with the safety of the persons using vehicles, has not received the attention it deserves. We were told that as the prices of cars were controlled but those of ancillaries were not, even vehicle manufacturers often compromised with the rigid tests laid down by them in this respect. Most of the manufacturers in organised sector, had, or have, the benefit of foreign technical collaboration and also have advantage of possessing the necessary testing equipment of their own. It is, therefore, reasonable to expect that the quality of their products should generally be comparable to the international standards of similar products. We were, however, informed that some times even these units did not

adhere to quality standards. Their explanation was that the non-availability of a number of raw materials of required quality consistently made it impossible for them to conform to the standards. We have already indicated in para. 4.8 the desirability for some arrangement for equitable distribution of raw materials at reasonable prices. However, while the non-availability of good quality raw material could no doubt be one of the causes, the lack of quality consciousness and desire to maintain existing profit margins at the cost of quality also appear to have been responsible for deterioration in the quality of goods manufactured in this sector. *It is essential for the concerned Associations representing this sector viz., the A. I. A. & A. I. A. and the Association of Indian Automobile Manufacturers (A. I. I. M.) to consider what steps they can take to ensure that their members conform to the quality standards acceptable to all.*

5.5. The problem is stated to be much worse in the case of products produced by the number of small units spread all over the country. The principal reasons put forward to explain this state of affairs were two—there are no special well organised training programmes to make the proprietors of small units conscious of the need for quality control. Secondly, even if the small units desired to adhere to the quality control, they cannot afford to possess their own testing equipment necessary for the purpose. Group testing facilities at which they can get necessary services at reasonable rates have not yet been sufficiently developed despite recommendations to that effect by the Pande Committee as well as the Tariff Commission.

5.6. There is no doubt that these are genuine difficulties. We, however, think that *the mushroom growth of these units and the resulting scramble among them for the available market have also contributed substantially to the lack of quality consciousness on their part.*

5.7. Those who have considered the question of the quality of ancillary products have often suggested that to improve the quality of ancillaries there should be a continuous dialogue between the ancillary and vehicle manufacturers for the purpose. We were told by the representatives

of the organised industry that there is such a regular dialogue between the two wings of the industry to resolve their technical difficulties. We also understand that some of the large-scale units have regular contacts with small scale units to guide them in quality matters. It appears to us that at present such contacts are on a personal basis between individual units in organised sector and their suppliers for ancillaries in the small-scale sector. It is desirable that these contacts and dialogues among the representatives of the different wings of the Industry take place on a much larger and organised scale. *We, therefore, recommend the constitution of a small committee consisting of the representatives of the A. I. A. & A. I. A., A. I. A. M., the Small Industries Service Institute (S. I. S. I.) and the Federation of Associations of Small Industries of India which could meet at regular intervals to exchange views and discuss the difficulties of the Industry including those relating to quality problems. This would enable the Industry to identify specific hurdles to be overcome and corrective steps to be taken. This Committee could also work out a plan for setting up quality testing facilities at certain central places for the benefit of small scale units.*

5.8. The Indian Standards Institution (I. S. I.) has also an important role to play in helping the ancillary industry to promote quality control. The I. S. I. has published standards for a number of items and standards for many other ancillary items are under preparation or on programme of the work of the concerned technical committees of the I. S. I. The I. S. I. specifies the minimum standards to which a particular component and equipment should conform. The I. S. I. however, is not in a position to enforce the standards so laid down by it, because the scheme of licensing operated by the I. S. I. under which a manufacturer can ask for a licence based on the I. S. I. standards, is voluntary. Pande committee, had in this respect, made the following recommendations :—

- (i) The I. S. I. should be requested to formulate, on priority basis, standards for raw materials and components with the assistance of the car makers, ancillary producers and their suppliers.

- (ii) The car makers should be directed to adopt and implement Indian Standards as and when they are formulated.
- (iii) I. S. I. Certification Marks Scheme should be made compulsory for all ancillary producers on the basis of priorities to be established.

5.9. Even assuming that standards making and implementing is a laborious and slow process, it appears that very little progress has been made in this direction since the acceptance of these recommendations by the Government in February 1968. We were told that, as most of the ancillary manufacturers in organised sector had collaborated at one time or another with reputed foreign firms, many of them have well laid down standards and are in a position to satisfy even the specific requirements of the buyers who have laid down their own standards which are at times superior to those laid down by the I. S. I. In view of this, we would suggest, that the I. S. I., should, on priority basis, take up *the question of laying down standards for items reserved for small scale sector. This would give at least to the quality conscious consumers a chance to purchase spares of some minimum quality standards.*

6.1. The D. C. S. S. I., in his communication to the Commission, has enumerated some of the difficulties
 6. Other problems of the Small Scale Sector experienced by small scale units as follows :

- (a) There is unhealthy competition between large scale and small scale ancillary industries in respect of the supply of parts and components.
- (b) The parts and components supplied by small scale units are acceptable to original equipment manufacturers and yet their prices are not fixed at par with similar parts and components supplied by large-scale manufacturers. The large scale units get preferential treatment as compared to the small scale units in regard to payment for their supplies. The small scale units have to wait for something like three to nine months.

- (c) Requirement of large units in respect of many ancillary items are too small in quantities.
- (d) There is no stability in respect of the orders placed by large scale units. The large scale units are not fully co-operating to develop ancillary relationship and also do not want to go into long term sub-contracting arrangement but prefer to purchase components as and when required.
- (e) In negotiating price, greater consideration is given to cheapness than to technical complexity of the jobs.
- (f) Specific raw materials required for the specialised ancillary items are often not available.
- (g) Raw material and financial assistance and technical guidance are seldom offered in case difficulties are experienced by manufacturers of specialised ancillary items in these respects.

6.2. The representatives of the manufacturers and the A. I. A. & A. I. A., however, indicated that it was not possible to generalise about the difficulties of all the small scale units in the manner the D. C. S. S. I. had done. Generally, manufacturers were guided by quality considerations and many of them not only guided small scale units in many respects but even helped them in the supply of raw materials.

6.3. There are two aspects of the problem of competition in the ancillary industry. First, there is substantial amount of unhealthy competition in the small scale sector itself. This seems to us to be mainly due to indiscriminate establishment of small units in a number of States without proper assessment of the demand for their products and the ability of the units to face competition. As Pande Committee pointed out, "..... the State Directors of Industries were keen to set up industrial units belonging to the automobile ancillary group in their States, irrespective of the fact that already some units had been established in other places. This naturally leads to an unhealthy competition between such producers which finally ends up in the inevitable lowering of the quality of the products." In this res-

pect it is necessary to bear in mind that at present the production of automobiles in the country, for various reasons like considerations of priorities, scarcity of raw materials, restriction of capacity for prevention of monopoly concentration etc. has been limited. Consequently, the ancillary industry cannot expand disproportionately without unhealthy effects unless either the main industry i.e. the automobile industry, which absorbs its products, is allowed to expand proportionately or the ancillary industry is geared up to be able to undertake exports of a substantial quantity of its products. *We feel that even if it were not possible to limit the number of ancillary producers by any governmental action, promotional agencies like the S. I. S. I. and State Directorates should, with a view to discouraging ruinous unhealthy competition, bring out literature, circulars etc. which would give a factual and realistic appraisal of supply and demand situation and survival prospects in different regions of the country.* Secondly, there is also the problem of *inter se* competition amongst large, medium and small scale sectors. Pande Committee in this connection had suggested that, as far as feasible, the spheres of activity of these three sectors might be defined to minimise such *inter se* competition. We have been informed by the Development Commissioner that, as a measure of protection, the production of about 50 items (listed in Annexure—I) has already been reserved for the small scale sector. The D. G. T. D. has informed us that though there are a few items which are being manufactured both by the large scale and small scale sectors, there is no unhealthy competition between the two sectors since the overall supply of these items does not exceed demand for them.

6.4. Regarding the preferential treatment said to be shown in respect of prices paid for components of large scale units *vis-a-vis* small scale units, we were told that often such price differences were due to differences in quality between apparently identical items. The D. G. T. D. has informed us that “.....there are some firms who have established a higher standard of workmanship and quality control than the minimum prescribed. This is not only applicable to the products manufactured by the large scale and small scale sectors, but is in fact, applicable to even products

manufactured by different units in large scale sector itself” We think that some price difference, indicative of quality differences and preferences arising out of such factors as consistent reliability of suppliers etc., are bound to persist in any market.

6.5. Regarding the alleged malpractice of delay in payment to small scale manufacturers, we were told by the representatives of the D. C. S. S. I., who attended the joint discussions, that the Committee for Drafting Legislation for Small Scale Industries had recommended in its Report that there should be legislation which should provide the necessary protection to small scale units in such matters. On the question of ensuring to small scale units an equitable share of the available raw materials, we were informed by the representatives that the Government had appointed a special committee, to go into this question and that the report of the Committee was under the consideration of the Government.

7.1. Imports :

A statement showing imports of certain important ancillary items during the period 1967-68 to 1971-72, as compiled from the 'Monthly

7. Foreign Trade Statistics of the Foreign Trade of India' is at Annexure J. From the statement it appears that the trend of decreasing imports in respect of certain items was reversed in the year 1971-72.

7.2. Progress of indigenisation :

7.2.1. In paragraph 29.15 of the Commission's Report on the Continuance of Protection to the Automobile Industry (1968), it was suggested that components may be classified broadly as under :

- (i) Components both finished and semi-finished which are not likely to be produced in the country within the next five years;
- (ii) Components both finished and semi-finished which are partly being manufactured in the country and are partly being imported owing to inadequate pro-

duction or non-availability of the requisite designs and specifications, or lack of volume of requirements;

- (iii) Components which are being manufactured in the country in the requisite quantities.

7.2.2. We had requested the D. G. T. D. to classify the major 88 components specified in our last Report under the above three categories as in 1968 and 1972. The D. G. T. D. could furnish such classification only for the year 1972. This classification is given in Annexure—K. It will be seen from the Annexure that there is no item which comes under category (i).

7.2.3. The industry reported some instances of further progress in the field of import substitution e.g. development of special types of gaskets to reduce consumption of copper, substitution of aluminium-tin for both white metal and copper-lead in the manufacture of thin walled bearings, use of steel coated strips in radiators etc. It was explained to us that the progress in respect of indigenisation was rather slow mainly due to lack of research and development aids, inadequate as well as unpredictable supplies of special raw materials and their high prices. In the field of research, it was necessary to modify available designs or develop new designs so as to be able to manufacture them from indigenously available raw materials, or to develop alternative raw materials so as to substitute them for presently scarce materials. Moreover, large scale import substitution, it was contended, would be possible only if certain special types of steels such as alloy steels and other scarce materials like copper etc. were produced in the country in sufficient quantity and made available to manufacture at reasonable prices. Though the production of some of these special types of materials had been started in the country, the materials were not available regularly and in sufficient quantity and we were told that at times their prices quoted in the market were higher than the prices for imported materials.

7.2.4. In the absence of comparative information for previous years, we have not been able to get any clear picture about the pace of indigenisation. *We reiterate the sug-*

gestion made in paragraph 29.15 of the Commission's Report on the Continuance of Protection to Automobile Industry indicated in paragraph 7.2.1. above. It would also be desirable if, in order to help the proper assessment of the progress of indigenisation, the D. G. T. D. could maintain more detailed information in respect of components grouped under broad category (ii) so as to show separately imports owing to (a) inadequate production (b) non-availability of requisite designs and specifications and (c) lack of volume of requirements.

7.3. Exports :

7.3.1. There has been a significant increase in the exports of automobile ancillaries during the period 1966-67 to 1971-72 as is evident from the following figures published by the A. I. A. & A. I. A.

Year	Value (in Rs. lakhs)
1966-67	96.0
1967-68	120.0
1968-69	316.0
1969-70	414.0
1970-71	529.0
1971-72	790.0

(Source : Automobile Ancillary Industry Blue Books 1971 and 1972).

7.3.2. The destination and item-wise break-up of the exports of ancillaries are given in Annexure 'L' and 'M'. The major countries to which exports are directed have been Shri Lanka, Egypt, Nigeria, Singapore, Sudan, Yugoslavia, U. K., Kenya and Iran. As will be seen Shri Lanka was the largest importer followed by West Germany (F. R. G.) in 1971-72.

7.3.3. Even with substantial rise above 1966-67 level, the Indian exports works out to only about 0.2% of the world trade in automobile ancillaries.

7.3.4. At present the automobile ancillary industry has been listed among priority industries for the purpose of Import Trade Control Policy. (Appendix I of Import Trade Control Policy Vol. I Item 43). As such, the need based policy of replenishment for the import of raw materials, components and spares is applicable to this industry also. The ancillary manufacturers are under obligation to export 13 major components. (Appendix 10 of Import Trade Control Policy Vol. I Item 7). These items are listed in Annexure N. The import requirements of the manufacturers, whose export performance in respect of these items is less than 5% of their production are liable to a cut in the event of inadequate availability of foreign exchange, apart from being ineligible to preferred sources of supply. This, however, does not apply to small-scale units and the units which have not completed five years in production. With a view to encouraging exports of certain items, the Government have also granted since June 1966 incentives in the form of (a) a specified percentage of import replenishment (ranging from 10 to 50 per cent but in most cases 20% and 40%) to manufacturers against their exports, (ii) some cash assistance, generally 10%, and (iii) eligibility to claim drawback of duty at rates fixed by the Government. The details of these are given in Annexure O.

7.3.5. The Export Promotion Council had fixed the target of Rs. 700 lakhs and Rs. 1050 lakhs for the years 1971-72 and 1972-73 respectively. The Trade Development Authority has fixed a target of \$ 50.0 million or Rs. 3.750 lakhs per year to be achieved by 1975-76.

7.3.6. The Industry feels that though India has a much bigger potential for exports in the field of automobile ancillaries than actually realised so far, a number of factors are hampering increase in exports. The principal factors, as enumerated by the Industry, are as follows:

- (i) Because of certain restraints on the increase in the capacity of certain types of manufacturers, the production of exportable items cannot be increased despite a good demand in the foreign markets for these items.

- (ii) The quality raw materials used in export products, whether indigenous or imported, are not available at international prices and, as a result the cost of production of the exportable products, despite some incentives, was very high and this affected the competitiveness of the industry in foreign markets.
- (iii) The incentives granted in the form of cash assistance and duty draw-back are too inadequate, particularly due to substantial increase in the prices of raw materials. For instance, in the case of rear axle shafts, the custom and excise duties to be paid come to Rs. 700 per tonne of imported raw material whereas the duty draw-back, at the rate of 3% of the F. O. B. value of Rs. 3500, Rs. 4000 per tonne of the forgings, amounted to only Rs. 105-120 which was less than even the excise duty of Rs. 125 per tonne.
- (iv) The procedure for receiving incentives and draw-backs on duties paid is extremely complicated and sometimes keeps the recipients waiting for years.

7.3.7. During the joint discussions, we noted that the industry and the Government departments concerned with the industry (the Ministry of Heavy Industries, the D.G.T.D. etc.) held different views regarding the extent to which export promotion could be pursued.

7.3.8. The representatives of the Industry felt that, of about the major sixty items which India was exporting, a number of items like pistons, springs, gaskets are subject to standardization and if the capacity was permitted to be expanded substantially and certain raw materials were made available at least at international prices, India could export a larger quantity than at present and earn substantial foreign exchange. The expansion for export purposes would help the organised as well as small scale sectors since there was at present recession in respect of ancillary products in the domestic market and also because, even if the recession ended, there was no possibility of the automobile industry growing at a rapidly increasing rate in the near future. The

high level Indian delegation of Automobile Ancillary Industry (sponsored by the Federation of the Indian Chambers of Commerce) which had visited Japan during March 1971, had also recommended the creation of large capacities in the organised sector to enable the country to establish trade relations with Japan, the second largest producer of automobiles in the World to-day. On the other hand, the representatives of the concerned departments felt that it would be too risky to allow the capacity to expand just on the basis of the assessment of export potential for a number of items. The international demand was very uncertain and the ancillary industry had a peculiar technical nature. There are many makes and models of cars and vehicles on roads in different countries. It was too costly to design the tools and dies for a number of parts. If large capacities were built for too many items and international demand contracted then the internal market, because of its restricted nature, might not be able to absorb the increased production. In view of this, the authorities felt that the country had to move in respect of capacity expansion for export purposes in a cautious manner particularly because of the acute shortage of raw materials. Only those firms could be allowed to expand which could furnish a guarantee that they would export and thus earn the raw materials required by them.

7.3.9. We are inclined to agree with the view that *there is no point in going for capacity expansion in a big way in respect of ancillary industry just with a view to creating surplus capacity for export purposes without creating a stable base for it in the domestic market. The approach towards the promotion of exports will, therefore, have to continue to be selective.* However, once some realistic export targets and incentive policies are framed, it is necessary to ensure that the policies laid down are actually implemented and the targets attained. *It would, for instance, be desirable that a periodical re-examination of the incentive policies is undertaken to take note of the increasing costs of production of exportable components. It would also appear to be necessary to review the procedures laid down for claiming duty drawback to make them simple and expeditious.* It was brought to our notice that in one case

the party had not received till July, 1973 (when the Joint discussions with the Commission were held) the duty drawback amounting to more than Rs. 3 lakhs though the claim had been preferred in May, 1967.

Our conclusions and recommendations are summarised below.

- (i) The Government may examine the desirability of entrusting the function of co-ordinating all important data regarding the organised sector of the ancillary industry to one suitable agency.
8. Summary of Conclusions and Recommendations

(Paragraph 2.2.2.)

- (ii) The Development Commissioner, Small Scale Industries should regularly undertake periodical census of the units established in the small scale sector and collect all the relevant data such as capacity, production, number of persons employed etc., regarding them.

(Paragraph 2.2.3.)

- (iii) The Government may further consider the desirability of ensuring, through a central agency, co-ordination and scrutiny of all the data collected by the Directorate General of Technical Development and the Development Commissioner, Small Scale Industries so that a complete picture of the development of the ancillary industry is available at one source.

(Paragraph 2.2.3.)

- (iv) The Directorate General of Technical Development should urgently undertake the work of technically assessing and specifying item-wise, the licensed and installed capacities of ancillary manufacturing units in the industry.

(Paragraph 2.3.)

- (v) If any scheme of equitable distribution of raw materials at reasonable prices could be evolved it would help to bring down the prices of ancillaries significantly; but it is obvious that a long term stability of prices of ancillaries

will continue to be difficult of achievement unless production also is brought up to be in step with demand in place of there being chronic shortage of certain items as at present.

(Paragraph 4.8.)

(vi) It is essential for the concerned Associations representing the organised sector viz. All India Automobile and Ancillary Industries Association and the Association of Indian Automobile Manufacturers to consider what steps they can take to ensure that their members conform to the quality Standards acceptable to all.

(Paragraph 5.4.)

(vii) A small Committee consisting of the representatives of the All India Automobile and Ancillary Industries Association, Association of Indian Automobile Manufacturers, the Small Industries Service Institute and the Federation of Associations of Small Industries of India should be constituted. The Committee should meet at regular intervals to exchange views and discuss the difficulties of the industry including those relating to quality problems. This would enable the industry to identify specific hurdles to be overcome and corrective steps to be taken. This Committee could also work out a plan for setting up quality testing facilities at certain central places for the benefit of small scale units.

(Paragraph 5.7)

(viii) The Indian Standards Institution should, on priority basis, take up the question of laying down standards for items reserved for small scale sector.

(Paragraph 5.9.)

(ix) Even if it were not possible to limit the number of ancillary producers by any governmental action, promotional agencies like the Small Industries Service Institute and State Directorates should, with a view to discouraging ruinous, unhealthy competition among small-scale units, bring out literature, circulars etc., which would give a factual and realistic appraisal of supply and demand situation and sur-

vival prospects in different regions for the guidance of the prospective small scale units.

(Paragraph 6.3.)

(x) In order to help the proper assessment of the progress of indigenisation, the components may be classified broadly under the categories indicated in paragraph 29.15 of the Commission's Report on the Continuance of Protection to the Automobile Industry (1968) and reproduced in para. 7.2.1. of this Report. It would be desirable if the Directorate General of Technical Development could maintain more detailed information in respect of category (ii) so as to show separately imports owing to (a) inadequate production (b) non-availability of requisite designs and specifications and (c) lack of volume of requirements.

(Paragraph 7.2.4.)

(xi) There has been a significant increase in the exports of automobile ancillaries. Yet, the Indian exports work out to be just about 0.2% of the world trade in automobile ancillaries.

(Paragraphs 7.3.1. & 7.3.3.)

(xii) It may not be desirable to create surplus capacity for export purposes without creating a stable base for it in the domestic market. The approach towards the promotion of exports, will have to continue to be selective.

(Paragraph 7.3.9.)

(xiii) It would be desirable to undertake a periodical re-examination of the export incentive policies to take note of the increasing costs of the production of exportable components and to review the procedures for claiming duty drawback to make them simple and expeditious.

(Paragraph 7.3.9.)

9.1. We wish to express our thanks to the ancillary and automobile manufacturers and their associations, consumers and the concerned Central Government Departments for furnishing to us information in connection with this Review.

Acknowledgements

9.2. We place on record our appreciation of the hard work put in by the officers and staff of the Commission associated with this Review.

D. P. ANAND,
Chairman.

PRAMOD SINGH,
Member.

M. B. PALEKAR,
Member.

S. S. SAXENA,
Secretary.

Bombay,

23rd October, 1973.



ANNEXURE A

(Vide Paragraph 1.2)

List of parties to whom Commission's Questionnaires/letters were issued and from whom replies or memoranda have been received

*Those who have replied.

@Those who are not interested.

A. Ancillary Manufacturers

(i) To whom preliminary letter was issued

1. *Acme Manufacturing Co. Ltd.,
Construction House,
Walchand Hirachand Marg,
Ballard Estate,
Bombay-1.
2. @Aditya Agro Industries Pvt. Ltd.,
11-A/3, Mount Road,
Madras-2.
- *3. Allied Auto Accessories Pvt. Ltd.,
240, Dr. D. N. Road, Fort,
Bombay-1.
- *4. Forbes Forbes Campbell & Co. Ltd.,
Forbes Building,
Home Street,
Bombay-1.
5. Auto Lamps Limited,
6. Alipur Road,
P.B. No. 1741,
Delhi-6.
6. Automobile Ancillaries of India Pvt. Ltd.,
Plot No. 31,
Kandivli Industrial Estate,
M.G. Road, Kandivli (West),
Bombay-67.

- *7. Automobile Products of India Limited,
Lal Bahadur Shastri Marg,
Bhandup, Bombay-78.
- @8. Automobile & Allied Industries Pvt. Ltd.,
316, Vithalbhai Patel Road,
Bombay-4.
- 9. Auto Pins (India) Regd.,
Kashmere Gate,
Delhi-6.
- @10. Auto Piston Manufacturing Co. Pvt. Ltd.,
Batala Road, P.O. Khanna Nagar,
Amritsar.
- 11. Avdel (India) Pvt. Ltd.,
409, Himalaya House,
Palton Road,
Bombay-1.
- @12. Bajaj Auto Limited,
Bombay-Poona Road,
Chinchwad,
Poona-19.
- *13. Best & Co. (Mfrs.) Pvt. Ltd.,
13/15, North Beach Road,
Madras-1.
- 14. Bharat Motors,
35, Mount Road,
Madras-2.
- *15. Bharat Radiators Pvt. Ltd.,
S. G. Barve Road,
Kalina, Santa Cruz East,
Bombay-29.
- 16. Bharat Springs Pvt. Ltd.,
Bombay-Agra Road,
Vikroli,
Bombay-83.

17. Bhavnagar Oil Chemical Industries Pvt. Ltd.,
Bombay Mutual Bldg.,
D.N. Road, Fort,
Bombay-1.
- *18. Bimetal Bearings Ltd.,
Huzur Gardens,
Sembiam, Madras-11.
19. Bombay Motor Trading Co.,
Kapurthala (Punjab).
- *20. Brakes India Limited,
Padi, Madras-50.
- @21. Bramec Suri Pvt. Ltd.,
1655, S.P. Mukherjee Marg,
Delhi-6.
22. Fenner Cockill Ltd., The Pandyan Building,
West Veli Street,
Post Box No. 117,
Madurai-1.
23. Canara Workships Ltd.,
P.B. No. 712,
Mangalore
- *24. Carburettors Ltd.,
29, Mount Road.
Madras-2.
- *25. Chopra Motors,
139, Regent Park,
Calcutta-40.
- *26. C.M. Smith & Sons,
Dasarath Wadi,
Court Road, Nadiad,
Gujarat State.

27. Contract Corporation,
301, Vaishali Apartment,
Parekh Street,
Bombay-4.
- *28. Coventry Spring & Engineering Co. Pvt. Ltd.,
23, Ganesh Chandra Avenue,
Calcutta-13.
29. Davis & White (India) Pvt. Ltd.,
15, Main Mathura Road,
Faridabad, (Haryana).
- @30. Delta Spokes Manufacturing Co.,
14, Nanabhai Lane,
Bombay-1.
- @31. Elgi Equipments Pvt. Ltd.,
India House, Trichy Road,
Coimbatore-18.
32. Elofic Industries (India),
Patel Motor Market,
Kashmere Gate,
Delhi-6.
33. Enfield India Limited,
Royal Enfield Building,
P.B. No. 5284,
Thiruvottiyur, Madras-19.
- *34. Engine Valves Ltd.,
1, Noble Street, Post Box No. 1305,
Madras-16.
35. Escorts Limited.
11, Scindia House,
Connaught Circus,
New Delhi.
- *36. Ex-Cell-o India Ltd.,
78-B, Dr. Annie Besant Road,
Worli, Bombay-1.

37. Fit Tight Nuts & Bolts Ltd.,
Old Ashram, Andheri-Kurla Road,
Bombay-69.
- *38. Forgings Private Limited,
18/5 Mile, Mathura Road,
Faridabad (Haryana).
- @39. Fritz & Singh Pvt. Ltd.,
B-29/B, Kailash Colony,
New Delhi.
- @40. Fuel Injections Ltd.,
29, Agakhan Building,
Dalal Street,
Bombay-1.
- *41. Gabriel India Ltd.,
L.B. Shastri Marg,
Mulund, Bombay-80.
- *42. Gaskets & Oil Seals Pvt. Ltd.,
P.B. No. 89,
Baroda.
- *43. Globe Auto Electricals Ltd.,
Agra Road, Mulund,
Bombay-80.
- *44. Goetze (India) Ltd.,
Block, H, Connaught Circus,
New Delhi.
45. Gold Seal Products Company,
Murlimal Shrikisandas Compound,
Agra Road, Bhandup,
Bombay-78.
- @46. Guest, Keen, Williams Ltd.,
97, Andul Road,
Howrah.

- *47. Gurmukh Singh & Sons (Regd.),
Gill Road. Miller Ganj,
Ludhiana-3.
- *48. Guru Nanak Auto Engg. & Foundry Works,
G.T. Road, Goraya (Dist. Jullundur).
- *49. Hasman Industries,
Kamruddin Industrial Estate,
Safed Pool, Saki Naka,
Kurla-Andheri Road,
Bombay-72.
- @50. Hindustan Ferodo Ltd.,
Ghatkopar,
Bombay-86.
51. Hubs & Drums Pvt. Ltd.,
Akashdeep, French Bridge,
Bombay-7.
- *52. Hyderabad Allwyn Metal Works Ltd.,
Sanatnagar P.O., Hyderabad-18.
- *53. Hydraulics Ltd.,
29, Mount Road,
P.B. No. 331, Madras-2.
- @54. Ideal Jawa (India) Pvt. Ltd.,
Industrial Estate, Mysore-2.
55. Imanes Pvt. Ltd.,
94, S.V. Road, Erla, P.B. No. 8002,
Bombay-56
- *56. Indequip Engineering Ltd.,
Reid Road, Ahmedabad-2.
57. India Body Builders,
Eastera Woollen Mills' Compound,
62, Bhavanishankar Road,
Dadar. Bombay-28.

58. India Filters Mfrs. Pvt. Ltd.,
B-11, Ambattur Industries Estate,
Madras-58.
59. India Leaf Spring Manufacturing Co. Pvt.
62, Mahatma Gandhi Road,
Secunderabad (A.P.).
- *60. India Pistons Ltd.,
Huzur Gardens, Sembiam,
Madras-11.
- @61. India Pistons Repco Ltd.,
Huzur Gardens, Sembiam,
Madras-11.
- *62. India Radiators Ltd.,
99, Armenian Street,
P.B. No. 113, Madras-1.
- *63. International Instruments Pvt. Ltd.,
140, Hosur Road,
Bangalore-34.
- *64. Jaya Hind Industries Pvt. Ltd.,
Bombay-Poona Road,
Chinchwad, Poona-19.
- *65. Jayanand Khira & Co. Pvt. Ltd.,
Khira Bhavan, Sandhurst Bridge,
Bombay-7.
- *66. Jayant Engineering Works,
1344, Shivajinagar,
Poona-5.
- *67. J.M.A. Industries Pvt. Ltd.,
8, Padmini Enclave,
Haus Khas, New Delhi-17.
- *68. Jonas Woodhead & Sons (India) Ltd.,
41, Thiruneeramalai Road,
Madras-44.

- *69. John Wriston Corporation,
1/124 Lloyds Road,
Madras-6.
- *70. Kalina Metal & Engineering Works,
109, Sheth Motishah Lane,
Mazagaon, Bombay-10.
- *71. K.S. Diesels Pvt. Ltd.,
19-21, Hamam Street,
Bombay-1.
- *72. Kanti Engineering Works,
4, Annesley Road,
Off Lamington Road,
Bombay-7.
- *73. Kirloskar Oil Engines Ltd.,
(Bearing Division),
13, Elphinston Road,
Kirkee, Poona-3.
- 74. Kothari Auto Parts Manufacturers Pvt. Ltd.,
431, Lamington Road,
Bombay-4.
- ④75. L.G. Balakrishnan & Bros. Pvt. Ltd.,
India House, 254, Trichy Road,
P.B. No. 1308, Coimbatore-18.
- *76. Lucas-TVS Ltd.,
Padi, Madras-50.
- ④77. Luk Auto Ancillary (India) Ltd.,
Akash Deep, 3rd Floor,
Barakhamba Road, New Delhi.
- 78. M.G. Automobiles,
Patelnagar, Bellary (Mysore).
- ④79. Maco Pvt. Ltd.,
6692/1, Khari Baoli,
Delhi-6.

- *80. Manindra Sintered Products Ltd.,
Gateway Building,
Apolio Bunder, Bombay-1.
- 81. Malleable Iron & Steel Castings Co. Pvt. Lt
Mathura Mills Compound,
Tulsi pipe Road,
Lower Parel, Bombay-13.
- *82. Metropolitan Springs Pvt. Ltd.,
Salt Pan Road, Antop Hill,
Wadala, Bombay-31.
- *83. Motor Industries Co. Ltd.,
P.B. No. 5093, Bangalore-1.
- 84. Mulji V. Narsi Pvt. Ltd.,
Udyognagar, Sion,
Bombay-22.
- *85. Murarka Engineering Works,
28/37, Najafgarh Road,
New Delhi-5.
- @86. National Fasteners Pvt. Ltd.,
42, Theagarya Road,
Theagraranagar, 147
Madras-17.
- 87. New India Motors Pvt. Ltd.,
Scindia House,
P.B. No. 296,
New Delhi-1.
- @88. Oil Seals Manufacturing Co. Pvt. Ltd.
Elphiustone Bldg.,
10, Veer Nariman Rd.,
Bombay-1.
- 89. Orient General Industries Ltd.,
111/1, Barrackpore Trunk Road,
Calcutta-35.

- *90. Payen-Talbro's Pvt. Ltd.,
14/1, Delhi-Mathura Road,
P.O. Amar Nagar,
Faridabad, (Haryana).
- *91. Perfect Engineering Products Pvt. Ltd.,
7, Bruce Street, (2nd Floor),
Bombay-1.
- *92. PMP Auto Industries Pvt. Ltd.,
430, Lamington Road,
Bombay-4.
- *93. Popular Automobiles Industries,
33B, Kennedy Bridge,
Bombay-4.
- *94. Precision Components Pvt. Ltd.,
Andheri-Kurla Road,
Marol Naka, Bombay-59.
- 95. Prestolite of India Ltd.,
2A/3, Asaf Ali Road,
New Delhi-1.
- *96. Press Metal Corporation Pvt. Ltd.,
Andheri-Kurla Road,
Bombay-59.
- *97. Purohit Rubber Works,
21/22, Kala Bhavan,
Mathew Road, Bombay-4.
- 98. Purolator India Limited,
Hauz Khas, P.O. Yusuf Sarai,
New Delhi-16.
- 99. Raomann Koshtkinn (Regd.),
53, Industrial Area,
Najafgarh Road,
New Delhi-15.

- *100. Ramon & Demm Ltd.,
79, Apollo Street,
Fort, Bombay-1.
- *101. Rane Brake Linings Ltd.,
Plot No. 30,
Industrial Estate,
Ambattur, Madras-59.
- *102. Rane (Madras) Ltd.,
Ganapathy Bldgs.,
47, Velachery Road,
Madras-32.
- 103. Ruby Coach Builders Pvt. Ltd.,
86/92, Andheri Kurla Road,
Marol Naka, Bombay-59.
- @104. Sahney Steel & Pressworks Pvt. Ltd.,
27, Kirol Vidya Vihar,
Bombay-77.
- 105. Sankey Wheels Ltd.,
Feeder Road,
Durgapur-1.
- 106. Saundzweirad Union (India) Pvt. Ltd.,
18/A, Kailas Colony,
New Delhi-14.
- @107. Schrader-scovill Duncan Limited,
Agra Road, Mulund,
Bombay-80.
- 108. Shama Engine, Valves Ltd.,
14-F, Connaught Place,
(Central Circle),
New Delhi.
- 109. Shama Pistons & Rings Limited,
14, 'F' Connaught Place,
New Delhi-1.

110. Sharco Industries Pvt. Ltd.,
P.B. No. 1467,
Sharan Kutir,
Kashmere Gate,
Delhi-6.
- *111. Shar-lee Filtorites Pvt. Ltd.,
P.B. No. 1226, Kashmere Gate,
Delhi-6.
- *112. Simetals Pvt. Ltd.,
61, Dr. S. S. Rao Road,
Parel, Bombay-12.
- *113. Simmonds Marshall-Ltd.,
Savoy Chambers,
5, Wallace Street,
Bombay-1.
- *114. Simpson & Co. Ltd.,
202/203, Mount Road,
Madras-2.
115. Sion Garage Pvt. Ltd.,
29, Amba Bhavan,
Sion Circle,
Bombay-22.
- *116. Sri Ramadas Motor Transport Pvt. Ltd.,
Subhas Road, P. Box No. 42,
Kakinada-1 (A.P.).
- *117. Standard Autoparts Pvt. Ltd.,
Industrial Estate,
Jodhpur (Rajasthan).
118. Standard Radiators Pvt. Ltd.,
Industrial Estate,
Baroda-3.
- *119. Stumpp, Scheuele & Somappa Pvt. Ltd.,
P.B. No. 5078, Bangalore-1.

- @120. Sundaram-Clayton Ltd.,
Padi, Madras-50.
- *121. Sundaram Industries Pvt. Ltd.,
TVS Buildings,
West Veli Street,
Madurai-1.
122. Surat Industrial Engineering Co. Pvt. Ltd.,
Mangalwadi, Varachha Road,
Surat-3.
- *123. Super Seals India Pvt. Ltd.,
21A, Nizamuddin West,
New Delhi-13.
- *124. Swastik Rubber Products Ltd.,
'Swastik' House,
Behind Kirkee Rly. Station,
Poona-3.
- *125. Teksons Pvt. Ltd.,
Modi Chambers,
French Bridge,
Bombay-4.
- @126. Turner, Hoare & Co. Ltd.,
Wavell House,
15, Graham Road,
Ballard Estate,
Bombay-1.
- *127. Unicorn Pvt. Ltd.,
29, Mount Road,
P.B. No. 2708,
Madras-2.
- *128. Union Co. (Accessories) Pvt. Ltd.,
29, Mount Road,
Madras-2.

- *129. Universal Radiators Pvt. Ltd.,
Mettupalayam Road,
Coimbatore-11.
- @130. Upper India Bearings Pvt. Ltd.,
4/147, Mount Road,
Madras-6.
131. Usha Automobile and Engineering Pvt. Ltd.,
14, Princep Street,
Calcutta-13.
132. Usha Telchrist Ltd.,
14, Princep Street,
Calcutta-13.
- *133. Victor Gaskets India Ltd.,
S, 305, Agra Road,
Mulund, Bombay-80.
- *134. Wheels India Ltd.,
37, Mount Road,
Madras-6.
- @135. Pioneer Spring & Steel Concern Pvt. Ltd.,
"Eagle House",
5th Floor, 4 Government Place (North),
Calcutta-1.
- *136. M/s. Injecto Private Ltd.,
20/5, Mathura Road,
Faridabad.
- *137. M/s. Inspi Auto Indst. Ltd.,
Kundan Mansion,
2A/3, Asaf Ali Road,
New Delhi.
- *138. M/s. Spaco Carburattor (India) Pvt. Ltd.,
C/o. Mehta Trading Co., Dhun Mansion,
Avantikabai, Gokhle Street,
Bombay-4.

- @139. D'Engineering (P) Ltd.,
Gopal Bagh,
Coimbatore-18.
140. M/s. John Fowler (I) Pvt. Ltd.,
136, Rashbehari Avenue,
Calcutta.
141. M/s. Fritz & Singh (P) Ltd.,
Fritz House, 227-Netaji Subhas Bose Road,
Tollygunj, Calcutta-47.
142. M/s. Tecalemit (Hind) Ltd.,
8 & 12 Chitharanjan Avenue,
Calcutta-13.
143. M/s. Western Thompson India (P) Ltd.,
Madras.
- *144. M/s. Ghatge Patil Industries (P) Ltd.,
Kolhapur, Maharashtra.
145. M/s. Kirloskar Pneumatic Co. Ltd.,
Hadapsar Industrial Estate,
Poona.
- *146. M/s. Hind Equipment Corpn. Ltd.,
24-B, Hamam Street,
4th floor, Bombay-1.
- *147. M/s. Globe Industries (P) Ltd.,
Agra Road, Mulund,
Bombay.
- @148. M/s. Shaney Kirkwood (P) Ltd.,
27, Kirol, Near Vidyavihar Station,
Bombay.
149. M/s. Himco India (P) Ltd.,
Dhanodham, Andheri Kurla Road,
Andheri, Bombay-59.

150. M/s. T. I. Miller Ltd., Ambattur,
Madras.
- @151. M/s. Atlas Automotive Components (P) Ltd.,
221 Dadabai Naroji Road,
Bombay-1.
152. M/s. Napco Bevell Gears of India Ltd.,
3, Friends Colony, New Delhi-14.
- *153. M/s. Bharat Forgo Co. Ltd.,
Mundhiva, P.B. No. 57, (Forge),
Poona-1.
154. M/s. National Steel and General Mills Ltd.,
Ghaziabad, U.P.
155. M/s. Madras Radiators & Pressings (P) Limited,
Madras.
- *156. M/s. Dhanda Engineers,
Faridabad.
- *157. M/s. Autometers Ltd.,
D-22, Defence Colony,
New Delhi.
- @158. Southern Industrial Corpn. Ltd.,
P.B. No. 113,
19, Aroanian Street, Madras.
- @159. M/s. Usha Martin Black (Wire Ropes) Ltd.,
14, Princess Street,
Calcutta.
- @160. M/s. Marshall Industries of India Ltd.,
17-A, Najafgarh Road,
New Delhi.
161. M/s. Sharadder-Scovil Duncan Limited,
31, Nethaji Subhash Road,
Calcutta.

162. M/s. Service Station Equipment Co. Ltd.,
11-A, Mayfare Gardens,
Malbar Hill, Bombay.
- @163. M/s. K. G. Khosla Co. Ltd.,
1, Deshabandu Gupta Road,
New Delhi.
164. M/s. Anandji Haridas,
165-F Road,
Bombay.
- @165. M/s. New Bamco Engg. (P) Limited,
Belgaum.
166. M/s. Indian Hardware Industries Ltd.,
58, Janpath, New Delhi.
167. Gajra Gears (P) Ltd.,
Elves Chambers, Fort,
Bombay-1.
- *168. M/s. Gleitlarger & Co.,
19/21, Hamam Street,
Fort, Bombay-1.
169. M/s. Allied International Products Ltd.,
5/125, Jeevan Tara Building,
Parliament Street, New Delhi.
- @170. M/s. Hub Bolts & Nuts India Ltd.,
(Spares and Accessories),
Dhebarbhai Road, Opp. Municipal Bldg.,
Rajkot.
- @171. M/s. Consolidated Pneumatic Tool Co. of India Ltd.,
301/2-Agra Road,
Bombay.
172. M/s. Tata Engg. & Locomotives Co. Ltd.,
Bombay House, 24, Bruce Street,
Bombay-1.

173. M/s. Airflow Transport (I) Pvt. Ltd.,
26/28, St. Mark's Road,
Bangalore.
- @174. M/s. India Tube Mills & Metals Industries Pvt. Ltd.,
126, Narayan Dhuru Street,
Bombay-3 BR.
- *175. M/s. Sri Ram Vilas Service Ltd.,
Kunubakonam, Tamil Nadu.
176. M/s. Punjsons Ltd., Punj House,
M-13, Connaught Circus,
New Delhi.
177. M/s. Magadh Transport Ltd.,
Bansani, Bihar.
- @178. M/s. AFCO (P) Ltd.,
16, Sleater Road,
Bombay.
179. M/s. M. G. Automobiles,
Bombay Madras Trunk Road,
Patel Nagar,
Bellary.
- *180. The Hindustan Motors Ltd.,
P.O. Uttarpura, Dist. Hooghly,
West Bengal.
- *181. The Premier Automobiles Ltd.,
Agra Road, Kurla,
Bombay-70 (AS).
182. The Standard Motor Products of India Ltd.,
29, Mount Road, Madras-2.
- *183. The Ashok Leyland Ltd.,
"TIAM" House,
11/12, North Beach Road,
Madras-1.

184. The Mahindra & Mahindra Ltd.,
Gateway Building,
Apollo Bunder, Bombay-1.
185. The Bajaj Tempo Ltd.,
Bombay-Poona Road,
Chinchwad, Poona-1.
186. The Hyderabad Allwyn Metal Works Ltd.,
Sanatnagar,
Hyderabad-18.
187. Grant James (P) Ltd.,
8A, B, Lower Rawden Street,
Calcutta.

(ii) *To whom detailed questionnaire was issued*

Large Scale Manufacturers

- @1. M/s. Injecto Private Ltd.,
20/5, Mathura Road,
Faridabad.
- *2. M/s. Spaco Carburator (India) Pvt. Ltd.,
C/o Mehta Trading Co., Dhun Building,
Avantikabai, Gokhle Street,
Bombay-4.
- *3. M/s. Ghatge Patil Industries (P) Ltd.,
Kolhapur (Maharashtra).
- *4. M/s. Hind Equipment Corpn. Ltd.,
24-B, Hamam Street, 4th floor,
Bombay-1.
- *5. M/s. Autometers Ltd.,
D-22, Defence Colony,
New Delhi.
6. M/s. Bharat Forge Co. Ltd.,
Mundhiva, P. B. No. 57, (Forge),
Poona-1.

7. M/s. Gleitlarger & Co.,
19/21, Hamam Street,
Fort, Bombay-1.
- *8. Acme Manufacturing Co. Ltd.,
Construction House,
Walchand Hirachand Marg,
Ballard Estate,
Bombay-1.
- *9. Allied Auto Accessories Pvt. Ltd.,
240, Dr. D. N. Road, Fort,
Bombay-1.
- *10. Forbes & Forbes Compbell & Co. Ltd.,
Forbes Building,
Home Street,
Bombay-1.
- *11. Automobile Ancillaries of India Pvt. Ltd.
Plot No. 31,
Kandivli Industrial Estate,
M. G. Road, Kandivli (West),
Bombay-67.
- *12. Automobile Products of India Limited,
Lal Bahadur Shastri Marg,
Bhandup, Bombay-78.
- *13. Best & Company Pvt. Ltd.,
13/15, North Beach Road,
Madras-1.
- *14. Bimetal Bearings Ltd.,
Huzur Gardens,
Sembiam, Madras-1.
- *15. Brakes India Limited,
Padi, Madras-50.

- @16. Bramec Suri Pvt. Ltd.,
1655, S.P. Mukherjee Marg,
Delhi-6.
- *17. Canara Workships Ltd.,
P.B. No. 712,
Mangalore.
- *18. Carburettors Ltd.,
29, Mount Road,
Madras-2.
- @19. Chopra Motors,
139, Regent Park,
Calcutta-40.
- @20. C. M. Smith & Sons,
Dasarath Wadi,
Court Road, Nadiad,
Gujarat State.
- *21. Coventry Spring & Engineering Co. Pvt. Ltd.,
23, Ganesh Chande Avenue,
Calcutta-13.
22. Elefic Industries (India),
Patel Motor Market,
Kashmere Gate,
Delhi-6.
- *23. Engine Valves Ltd.,
1, Noble Street, Post Box No. 1305,
Madras-16.
- *24. Ex-Cell-o India Ltd.,
78-B., Dr. Annie Besant Road,
Worli, Bombay-18.
- @25. Forgings Private Limited,
18/5, Main Mathura Road
Faridabad (Haryana).

- @26. Fritz & Singh Pvt. Ltd.,
B-29/B, Kailash Colony,
New Delhi.
- *27. Gabriel India Ltd.,
L. B. Shastri Marg,
Mulund, Bombay-80.
28. Gaskets & Oil Seals Pvt. Ltd.,
P. B. No. 89,
Baroda.
- *29. Globe Auto Electricals Ltd.,
Agra Road, Mulund,
Bombay-80.
- *30. Goetze (India) Ltd.,
Block, H, Connaught Circus,
New Delhi.
- @31. Gurmukh Singh & Sons (Regd.),
Gill Road, Miller Ganj,
Ludhiana-3.
32. Guru Nanak Auto Engg. & Foundry Wo
G. T. Road,
Goraya (Dist. Jullundur).
- @33. Hasman Industries,
Kamruddin Industrial Estate,
Safed Pool, Saki Naka,
Kurla-Andheri Road,
Bombay-72.
- @34. Hubs and Drums Pvt. Ltd.,
Akashdeep, French Bridge,
Bombay-7
35. Hyderabad Allwyn Metal Works Ltd.
Sanatnagar P. O.,
Hyderabad-18.

- *36. Hydraulics Ltd.,
29, Mount Road,
P. B. No. 331,
Madras-2.
- *37. Indequip Engineering Ltd.,
Reid Road,
Ahmedabad-2.
- @38. India Filters Mfrs.' Pvt. Ltd.,
B-11, Ambattur Industries Estate,
Madras-58.
- *39. India Radiators Ltd.,
99, Armenian Street,
P. B. No. 113, Madras-1.
- *40. International Instruments Pvt. Ltd.,
140, Hosur Road, Bangalore-34.
- *41. J.M.A. Industries Pvt. Ltd.,
8, Padmini Enclave,
Haus Khas, New Delhi-16.
- @42. Jonas Woodhead & Sons (India) Ltd.,
41, Thiruneeramalai Road,
Madras-44.
- 43. John Wriston Corporation,
1/124, Lloyds Road,
Madras-6.
- *44. K. S. Diesels' Pvt. Ltd.,
19-21, Hamam Street,
Bombay-1.
- *45. Kalina Metal & Engineering Works,
109, Sheth Motishah Lane,
Mazagaon, Bombay-10.
- *46. Kanti Engineering Works,
4, Annesley Road,
Off Lamington Road,
Bombay-7.

- *47. Kirloskar Oil Engines Ltd.,
(Bearing Division),
13, Elphinston Road,
Kirkee, Poona-3.
- 48. Kothari Auto Parts Manufacturers Pvt. Ltd.,
431, Lamington Road,
Bombay-4.
- *49. Lucas-TVS Ltd.,
Padi, Madras-50.
- @50. Mahindra Sintered Products Ltd.,
Gateway Building,
Apollo Bunder, Bombay-1.
- 51. Malleable Iron & Steel Castings Co. Pvt. Ltd.,
Mathura Mills Compound,
Tulsipipe Road,
Lower Parel, Bombay-13.
- @52. Metropolitan Springs Pvt. Ltd.,
Salt Pan Road, Antop Hill,
Wadala, Bombay-31.
- *53. Motor Industries Co. Ltd.,
P. B. No. 5093, Bangalore-1.
- *54. Murarka Engineering Works,
28/37, Najafgarh Road,
New Delhi-5.
- *55. Orient General Industries Ltd.,
111/1, Barrackpore Trunk Road,
Calcutta-35.
- *56. Payen-Talbro's Pvt. Ltd.,
14/1, Delhi-Mathura Road,
P. O. Amar Nagar,
Faridabad, (Haryana).

- *57. Perfect Engineering Products Pvt. Ltd.,
Mehar House, 4th Floor,
15, Cawasji Patel Street,
Bombay-1
- *58. PMP Auto Industries Pvt. Ltd.,
430, Lamington Road,
Bombay-4.
- 59. Popular Automobiles Industries,
33B, Kennedy Bridge,
Bombay-4.
- 60. Prestolite of India Ltd.,
2A/3, Asaf Ali Road,
New Delhi-1.
- *61. Press Metal Corporation Pvt. Ltd.,
Andheri-Kurla Road,
Bombay-59.
- *62. Purohit Rubber Works,
21/22, Kala Bhavan,
Mathew Road, Bombay-4.
- *63. Purolator India Limited,
Hauz Khas, P.O. Yusuf Sarai,
New Delhi-16.
- 64. Raomann Koshatkinn (Regd.),
53, Industrial Area,
Najafgarh Road,
New Delhi-15.
- 65. Ramon & Demm Ltd.,
79, Apollo Street,
Fort, Bombay-1.
- *66. Rane (Madras) Ltd.,
Ganapathy Bldgs.,
47, Velachery Road,
Madras-32.

67. Shama Engine Valves Ltd.,
14-F, Connaught Place,
(Central Circle),
New Delhi.
- *68. Sharco Industries Pvt. Ltd.,
P.B. No. 1467,
Sharan Kutir,
Kashmere Gate,
Delhi-6.
- *69. Shar-lee Filtorites Pvt. Ltd.,
P.B. No. 1226, Kashmere Gate,
Delhi-6.
70. Simetals Pvt. Ltd.,
61, Dr. S. S. Rao Road,
Parel, Bombay-12.
- @71. Simmonds Marshall Ltd.,
Savoy Chambers,
5, Wallace Street,
Bombay-1.
- @72. Sion Garage Pvt. Ltd.,
29, Amba Bhavan,
Sion Circle,
Bombay-22.
- *73. Sri Ramadas Motor Transport Pvt. Ltd.,
Subhas Road, P. Box No. 42,
Kakinada-1 (A.P.).
- *74. Standard Autoparts Pvt. Ltd.,
Industrial Estate,
Jodhpur (Rajasthan).
75. Standard Radiators Pvt. Ltd.,
Industrial Estate,
Baroda-3.
- *76. Stumpp, Schuele & Somappa Pvt. Ltd.,
P.B. No. 5078, Bangalore-1.

- *77. Sundaram Industries Pvt. Ltd.,
TVS Buildings,
West Veli Street,
Madurai-1.
78. Surat Industrial Engineering Co. Pvt. Ltd.,
Mangalwadi, Varachha Road,
Surat-3.
- *79. Super Seals India Pvt. Ltd.,
21A, Nizamuddin West,
New Delhi-13.
- *80. Swastik Rubber Products Ltd.,
'Swastik' House,
Behind Kirkee Rly. Station,
Poona-3.
- *81. Teksons Pvt. Ltd.,
Modi Chambers,
French Bridge,
Bombay-4.
- *82. Unicorn Pvt. Ltd.,
29, Mount Road,
P.B. No. 2708,
Madras-2.
- *83. Union Co. (Accessories) Pvt. Ltd.,
29, Mount Road,
Madras-2.
84. Universal Radiators Pvt. Ltd.,
Mettupalayam Road,
Coimbatore-11.
- *85. Usha Automobile & Engineering Pvt. Ltd.,
14, Princep Street,
Calcutta-13.
- *86. Victor Gaskets India Ltd.,
S. 305, Agra Road,
Mulund, Bombay-80.

- *87. Wheel's India Ltd.,
37, Mount Road,
Madras-6.
- *88. Premier Automobiles Ltd.,
Bombay.
- *89. Bharat Radiators Ltd.,
Bombay-29.
- *90. Hindustan Motors Ltd.,
Vttarpara, Distt. Hooghly,
W. Bengal.
- @91. Ashok Leyland Ltd.,
11/12, North Beach Road,
Madras-1.
- 92. Acme Batteries (P) Ltd.,
G.T. Road,
Delhi-Shahdara.
- 93. Aluminium Mfg. Co. (P) Ltd.,
2, Jessore Rd.,
Dum Dum,
Calcutta-28.
- 94. Anandji Haridas,
165, Frere Road,
Bombay.
- 95. Automobile & Agricultural Industries Corporation,
497/3, Roop-Raj,
V.P. Road,
Bombay-4.
- 96. Autometers Ltd.,
22-A, Asaf Ali Road,
New Delhi-1.
- @97. Ennore Foundry,
Ennore,
Madras-57.

98. Hindustan Safety Glass Works Pvt. Ltd.,
7, Chittaranjan Avenue,
Calcutta-13.
99. H.J. Leach & Co. Pvt. Limited,
Asian Building,
Nicol Road,
Bombay-1.
100. Hind Auto Industries Ltd.,
1, Madan Mohan Malaviya Marg,
Lucknow.
101. Hind Equipment Corporation Ltd.,
24-B, Hamam Street,
Raja Bahadur Compound,
Bombay.
102. Inspi Auto Industries,
Asaf Ali Road,
New Delhi.
103. John Fowler (India) Pvt. Limited,
136-A, Rash Behari Avenue,
Calcutta-20.
104. K.G. Khosla & Co. Pvt. Ltd.,
1, Deshbandhu Gupta Road,
New Delhi.
105. Mulchand Narottamdas,
Haines Road, Worli,
Bombay-18.
106. Motolit Ltd.,
111/1, B.T. Road,
Baranagore,
Calcutta-35.
107. Shree Vallabh Glass Works Ltd.,
59, B.J.P. Nagar,
Andheri-Kurla Road,
Bombay-59.

- @108. Shardlow India Ltd.,
Huzur Gardans,
Madras-11.
109. Accurate Products Corpn. Pvt. Ltd.,
Post Box No. 3715,
23, Mount Road,
New Delhi.
110. Addision & Co. Pvt. Ltd.,
158, Mount Road,
Madras-2.
111. Addisions Paints & Chemicals Pvt. Ltd.,
Sambiam,
Madras-11.
112. Aeromatic Equipment Company,
Khetan Bhavan,
M.I. Road,
Jaipur.
113. Ahmedabad Star Engineering Works Pvt. Ltd.,
1730, Haribhai's Dehla,
Outside Prem Gate,
Ahmedabad-11.
114. Allied Manufacturing Industries,
C/o D.M. Harishankar Narbheram & Co.,
94, Kansara Chawl,
Kalbadevi Road,
Bombay-2.
115. Amco Batteries Pvt. Ltd.,
Mysore Road,
Bangalore-2.
116. Anna Automobiles,
Bombay.
117. Antifriction Bearings Corporation Ltd.,
Marshall's Building,
Ballard Road,
Bombay-1.

118. Associated Battery Makers, (Eastern) Ltd.,
59/C, Chowranghee Road,
Calcutta-20.
119. Associated Engineering Works Ltd.,
Kashmere Gate,
Delhi-6
120. Associated Industries (India),
Lamington Road,
Bombay-7.
121. Auto Linors (Madras) Pvt. Ltd.,
Madras.
122. Automotive Rubber Company,
5, Seeterkin Street,
Calcutta-13.
123. Auto Piston Manufacturing Co.,
Amritsar.
124. Bahari Automobile Corporation Pvt. Ltd.,
Chembur,
Bombay.
125. Bhagwan & Anand,
18-H, Connaught Circle,
New Delhi-1.
- @126. B. K. Khanna & Co. Pvt. Ltd.,
Connaught Place,
New Delhi-1.
127. Blundell Somite Paints Ltd.,
Rustom Building,
Veer Nariman Road,
Bombay-1.
128. Bombay Alloys & Castings,
Lake Road, Bhandup,
Bombay-78.

129. C. Commons & Sons Pvt.,
103/3, Diamond Harbour Road,
Behala,
Calcutta-38.
130. Chase Bright Steel Limited,
Vaswani Mansions,
Dinshaw Vachha Road,
Bombay-1.
131. Chimanlal Desai & Company,
Goel Mansion,
Homji Street,
Bombay-1.
132. Coventry & Engineering Co. Pvt. Ltd.,
67, N. Subhas Road,
Calcutta-1.
133. Craftsman Electronics Corporation Pvt. Ltd.,
Sethna Hall,
Nesbit Road,
Bombay-10.
134. Delta Products Corporation (India) Ltd.,
Modi Chambers,
French Bridge,
Bombay-4.
135. Exim Traders,
Minerva Mansion,
359, Sandhurst Road,
Bombay-4.
- @136. Glass & Miniature Bulb Industries,
84/42, Fazalganj,
Kanpur.
137. Heemanshu Traders,
Churiwadi, Aarey Road,
P.B. No. 7502,
Goregaon East,
Bombay-62.

138. Indian Battery Manufacturing Co. Ltd.,
14, Lower Circular Road,
Calcutta-26.
139. Indian Die Casting Co. P. Ltd.,
178, Mahatma Gandhi Road,
Calcutta-7.
140. Indian Rubber Manufacturers Ltd.,
4, Lyons Range,
Post Box No. 727,
Calcutta.
- @141. Indian Standard Metal Co. Ltd.,
Chinchpokli Cross Lane,
Bombay-27.
142. Jagmohan Brothers.
8, Vishvashwar Nagar,
Aarey Road,
Goregaon East,
Bombay-62.
143. Jai Hind Rubber Products Pvt. Ltd.,
Post Box No. 1372,
Bombay.
144. Jamna Auto Industries,
Jamunanagar,
Haryana.
145. Jawaharlal Chandrashekhar,
Free Ganj,
Agra.
146. J.M.P. Manufacturing Co.,
Tanda Road,
Jullundur City.
147. Kaycee Industries Ltd.,
Kamani Chambers,
Ballard Estate,
Bombay-1.

148. Khosla Automobiles Co.,
14, Ram Singh Motor Market,
Kashmere Gate,
Delhi-6.
149. K.S. Trivedi & Co.,
19/21, Hamam Street,
Bombay-1.
150. Luthra Radiators and Press Works,
238, Punja, Madras.
Balaganj.
Agra.
151. Maneklal Manufacturing Co. Ltd.,
Ahmedabad.
152. Mercantile & Industrial Development Co. P. Ltd.,
National House,
6, Tulloch Road,
Apollo Bunder,
Bombay-1.
53. Metalcraft Corporation,
32, Cossipore,
Calcutta-2.
54. M.G. Brothers,
Bellary-2.
155. Mutual Steel Industries,
Nilam Mansion,
Tribhuvan Road,
Bombay-4.
156. Mysore Electro-Chemical Works Ltd.,
Rajaji Nagar,
Bangalore-3.
157. National Tyre & Rubber Co. of India Ltd.,
Kottayam (Kerala).

158. Oldham & Sons (India) Pvt. Ltd.,
Post Box No. 1304,
Madras-16.
159. Perfect Autoparts Company,
15, Esplanade Mansions,
Calcutta-1.
160. P.M.P. Auto Industries,
G.-1, Model Industrial Colony,
Aarey Road,
Goregaon East,
Bombay-62.
161. Pradip Lamps Limited,
Begampur Post,
Patna City.
162. Premier Motor Private Ltd.,
Madan Mohan Malaviya Marg,
Lucknow.
163. Premier Tyres Limited,
Manackji Wadia Building,
Mahatma Gandhi Road,
Bombay-1.
164. Raman Malleable Castings & Engineering Works,
Delhi-Darwaza,
Mathura (U.P.).
165. Rubber Industries Pvt. Ltd.,
P. Anjirwadi,
Mount Road,
Mazagaon,
Bombay-10.
166. Ruby Industries,
75, Dr. Annie Basant Road,
Worli, Bombay-18.

167. S.A. Engineering Works,
353, V.P. Road,
Paper Mill Lane,
Bombay-4.
168. Saini Rubber Industries,
20-C, Adarsh Nagar,
Azadpur,
Delhi-6.
169. Sanghavi & Company,
109, Love Lane,
Bombay-10.
170. Segments India Limited,
59, Apollo Street,
Bombay-1.
171. S.G. Jayaraja Nadar & Sons Pvt. Ltd.,
Ammanayakanur P.O.,
Madurai District.
172. Shree Engineering Products Ltd.,
"Shreenivas House" 4th Floor,
Waudby Road, Fort,
Bombay-1.
173. Shri Krishna Engineering Co.,
Raj Krishna Kumad Street,
Belur, Howrah.
174. Standard Batteries Limited.
Vakola,
Santacruz,
Bombay-55.
175. Tata Engineering & Locomotive Co. Ltd.,
Jamshedpur.
176. Tecalemit (Hind) Limited,
8 & 12, Chittaranjan Avenue,
Calcutta-13.

177. Tru-Temp Industries,
4-U-A-Bungalow Road,
Delhi-6.
178. Unimpex P. Ltd.,
21, Broach Street,
Bombay-9.
179. United Motor Body Builders Ltd.,
Industrial Co-operative Society,
Tanda Road,
Jullundur City.
180. Wyman-Gordon India Limited,
Post Box No. 41,
Thana, Maharashtra.
181. Niranjana Auto Pistons Ltd.,
14-E, Connaught Place,
New Delhi.
182. Sleeves India,
3-P/5, Northern Extn. Area,
Poorvi Marg,
New Delhi-5.
183. R.B. Desai (Precast Engg. P. Ltd.),
4-A, Kapur Mahal,
Marine Drive,
Bombay-1.
184. Inex Engine Valves Ltd.,
13/1, Parliament Street,
New Delhi.
185. Tarasingh Harbindar Singh,
190, Princess Street,
Bombay.
186. Tools & Electricals India Ltd.,
Netaji Subhas Road,
Calcutta-1.

187. Lucas Indian Pvt. Ltd.,
10, Patullo Road,
Mount Road,
Madras.
188. South India Automotive Corpn., P. Ltd.,
24, Whites Road,
Post Box No. 665,
Madras.
189. Elgi Equipment Pvt. Ltd.,
Coimbatore.
190. Ivnx Machinery Ltd.,
Clive Road,
Calcutta-1.
191. Avdel India Private Ltd.,
409, Himalaya House,
Palten Road,
Bombay-1.
192. Pioneer Spring & Steel Concern,
3, Jahura Bazar Lane,
Calcutta-42.
193. National Engg. Ltd.,
Jaipur.
194. Shri Ram Bearing Co. Ltd.,
49/1, Garihat Road,
Calcutta.
- *195. Associated Bearing Co. Ltd.,
Mahatma Gandhi Memorial Bldg.,
Netaji Subhas Road,
Bombay.
196. Precision Bearings India Ltd.,
Wavell House,
15, Graham Road,
Ballard Estate,
Bombay.

197. Bombay Steel Rolling Mills,
18, Netaji Subhas Road,
Calcutta.
198. C.Z. Roller Chains India,
Sindhu House,
Nana Bhai Lane,
Bombay.
199. K.T. Steel Industries (P) Ltd.,
Badlapur Road,
Ambernath,
Distt. Thana (Maharashtra).
200. Natvarlal & Co.,
Near Moti Tanki,
Rajkot.
- @201. Bharat Battery Mfg. Co. (I) Ltd.,
Ballygunge,
Calcutta-19.
- *202. India Pistons Ltd.,
Huzur Gardens,
Sembiam,
Madras-11.
- @203. Jay Hind-Industries (P) Ltd.,
Bombay-Poona Road,
Chinchwad,
Poona-19.
- *204. Jayant Engineering Works,
1344, Shivajinagar,
Poona-5.
205. Eastern Accumulators Co.,
31, Mango Lane,
Calcutta 1.
206. Dunlop Rubber Co. (I) Ltd.,
Ambattur,
Madras.

207. Inchek Tyres Ltd.,
Leslie House.
19, Chowringhee,
Calcutta.
208. Universal Tyres.
Calcutta.

Small-scale manufacturers

1. Pravat Udyog Mandir,
1/1, Industrial Estate
Patna-10.
2. Western Engineering & Sales Corporation
15/16, Industrial Estate,
Loni, (Meerut U.P.).
3. National Automotive Industries,
52, 'N' Block,
Connought Circus,
New Delhi.
- *4. Sheet Metal Industries,
Mahabalipuram Road,
Madras-41.
5. Associated Equipment Services,
Mahabalipuram Road,
Madras-41.
6. K. Venkataswamy Nayagar,
30, Kalmandapam Road,
Madras-13.
- *7. N.S. Krishna Rao Body Works,
37, Mount Road.
Guindy,
Madras-32.
8. Eastern Ore Corporation,
377, Netaji Subhas Bose Road,
Madras-1.

9. Bombay Spring Works,
118, Main Road, Dadar.
Bombay-14.
- @10. Sachin Engineering Corporation.
Marathe Udyog Bhawan.
New Prabhadevi Road,
Bombay-25 D.D.
11. Standard Engineering Co.,
21/3, Hadapsar Industrial Estate,
Poona-13.
12. Kaman Manufacturing Co.,
8, Horniman, Fort,
Bombay-1.
13. Ashoka Industries,
28/2A, New Rohtak Road,
New Delhi-5.
14. Insulation & Electrical Products (P) Ltd.,
308/2, Shahzada Bagh,
Old Rohtak Road,
Delhi-6.
15. M.K. Auto. Industries (Regd.),
Shalimar Park,
Shahdara,
Delhi-32.
16. Jainsons (P) Ltd.,
10, Industrial Estate,
Gwalior (M.P.).
17. Forgings (P) Ltd.,
18/5, Mathura Road,
Faridabad.
18. Maco (P) Ltd.,
E-24, Industrial Area,
Sonapat.

19. Pioneer Spring & Steel Concern (P) Ltd.,
3, Jahvra Bazar Lane,
Calcutta-42.
20. Anglo American Auto.,
23, G.C. Avenue,
Calcutta.
21. Ancillary Automatic Industries Pvt. Ltd.,
Bepin Behari Ganguli Street,
Calcutta-12.
- *22. Delhi Automotive Works,
Hoshiarpur Road,
Phagwara.
23. The Foundry & Engineering Services,
16-17, Super-A, Industrial Estate,
Guindy,
Madras-32.
24. Standard Machine Tools,
Ambattur,
Madras-58.
25. Associated Techno Enterprises,
Churi Wadi,
Aarey Road,
Goregaon,
Bombay.
26. Indian Commerce & Industries Co. (P) Ltd.,
Madras.
27. Eastern Electric Co.,
Madras.
- @28. National Fastners,
Madras.
29. Premier Electro-Mechanical Factory,
Madras.

30. Auto Steering Co. (P) Ltd.,
Seindia House,
New Delhi.
31. T.C. Aggarwal & Co.,
Ranjit Nagar,
Near H. N. 3245,
New Delhi-12.
32. Light Engineering Enterprises,
105/591, Bhannapura,
Kanpur.
33. K.B. Jethi & Co.,
95. B-Chittaranjan Avenue,
Calcutta-12.
- @34. Vanaz Engineering (P) Ltd.,
396. Savarkar Marg,
Prabhadevi,
Bombay-25.
35. Atul Engineering Works,
Gogalewadi, Aarey Road,
Goregaon (East),
Bombay-62.
36. Automat Engineering (P) Ltd.,
Aarey Road,
Goregaon,
Bombay-62.
37. Monax Industries,
Military Road,
Opp. Marol Maroshi Road,
Marol, Bombay-59.
38. Small Parts Mfg. Co.,
Saki Vihar Road,
Saki Naka,
Bombay-70.

39. Malet Welding Works,
16, Bank Street,
Bombay.
40. Everbest Techno Industries,
Roy Building,
5, Kilp Lane,
Lamington Road,
Bombay.
41. Hor Electric Manufacturing Co.,
28, Nandan Shah,
Varanasi.
42. Overseas Auto Parts Mfg.,
17, A.B. Sitalalwadi,
Mazagaon,
Bombay.
43. Echiav Industries (P) Ltd.,
Kanjur Village Road,
Bhandup, Bombay.
44. Auto Accessories,
Chandu Nagar,
Dehra Dun.
45. M/s. Vortex Mfg. Co. Ltd.,
222, Shri Mathura Das Vissanji Road,
Andheri,
Bombay-60.
46. Forgings & Stampings (P) Ltd.,
38, Khedgully,
Opp. Gokhale Road,
South Dadar,
Bombay.
- @47. Swift (P) Ltd.,
Marathi Udyog Bhavan,
New Prabha Devi Road,
Bombay-28.

48. M/s. Flite Auto Industries,
43, Queens Road,
Bombay-20.
49. M/s. Trina Engineering Co.,
9/46, Kirti Nagar,
Industrial Area,
New Delhi.
50. Precision Die Works,
Precision Building,
B.P.T. Plot No. 1,
Curee Road,
Cotton Green,
Bombay.
51. Remco Engineering Works,
220, Cadel Road,
Jahangir Baug,
Near National Hospital,
Bombay-10.
52. Industries (P) Ltd.,
Sehna Alwar Road,
Jharsa (Gurgaon).
53. Mulgand Industries,
P.B. No. 87,
Davangare.
54. Fairfield Mfg. Co.,
Hanuman Building,
Tambakanta,
Pydhonie,
Bombay-3.
- @55. M/s. Automotive Industries,
Amin Industrial Estate,
Sonawala Cross Road,
Goregaon East,
Bombay-63. N.B.

56. M/s. Bini Metal Works,
Pramathna Road,
Villa Parle,
Bombay-57.
57. Methias & Co.,
234 A, Dalisle Road,
Bombay-13.
58. Bukhari Engineering Works,
Industrial Estate,
Bombay.
59. Guru Nanak Auto Engineering,
C.T. Road,
Bombay.
60. Rakhi Engg. Corpn.,
33, Industrial Estate,
Kanpur.
61. Elefie Industries,
11/7, Mathura Road,
Faridabad.
62. Fitwell Engineering Industries,
Jam Mansion, 2nd Floor,
Sir P.M. Road, Fort,
Bombay.
63. Siesta Industrial & Trading Corporation,
North Kurla,
Bombay.
64. Argonants Engineering Works,
14, Ganesh Chandra Avenue,
Calcutta.
65. The Hindustan Radiators Co.,
Station Road,
Jodhpur.

66. National Metal Industries,
15-A Parel Village Road,
Bombay-12.
67. Hirlekar Precision Engineering,
Western India House,
Sir Pheroz Shah Mehta Road,
Bombay.
68. Bhagralaji Industries.
6½ Mile Stone,
G.T. Road,
Gaziabad (U.P.).
69. Sarda Industries,
Industrial Estate,
Ambathur,
Madras.
70. Bhagat Motors Co. (P) Ltd.,
50, Okhla Industrial Estate,
New Delhi-20.
71. Shreeji Industries,
72, North Vijayanagar,
Agra-4 (U.P.).
72. Specific Ventile Fabric,
61, Bhrugupur,
Housing Society,
Broach. (W. Railway) India.
73. East India Corporation,
98, Benajhabar Road,
Kanpur-2.
- @74. Krup Group of Industries,
Aish Bagh,
Lucknow.
75. Bharat Electric Co.,
Station Road,
Dhanbad.

76. Rajasthan Iron & Steel Works,
Brahmapuri,
Jaipur.
77. Nav Bharat Automobiles,
49, Taj Road,
Agra.
78. Standard Autoparts Pvt. Ltd.,
Chapasni Road,
Jodhpur.
79. Om Industries,
80/79, Latouche Road,
Kanpur.
80. Ashok Turning,
Secundarabad.
81. Ram Machineries Factory,
Hyderabad.
82. Rockson Springs,
Hyderabad.
83. Wipers India,
Hyderabad.
84. Deccan General Technical Works,
Secundrabad.
85. India Leaf Spring Mfg. Co.,
Sanatnagar.
86. Oswal Industries,
Industrial Estate,
Ajmer.
87. Auto Engineering Works,
Bangalore-21.
88. Argus Instruments Co.,
Bangalore-10.

89. High Precision Engineering Works,
Bangalore-18.
90. Industrial Components Mfg.,
Bangalore-19.
91. Imperial Tools Co.,
Bangalore-21.
92. Olympiad Engineering,
Bangalore-10.
93. Sri Raghva Metal Works,
Bangalore-2.
94. Sri Venkataswara Power Rolling Mills,
Bangalore-2.
- @95. Sarvodaya Engg. Works,
Bangalore-21.
96. Kareemsons Industries,
Ramnagaram.
97. Metal Cast,
Bangalore-10.
98. United Engineers,
Bangalore-10.
99. Sardar Kuldipsingh & Bros.,
279, Bhat Bazar,
Bombay-9.
100. Auto General,
Naaz Cinema Compound,
Lamington Road,
Bombay-4.
101. Phailal & Parekh,
487, Sardar V.P. Road,
Bombay-4.

102. P. Asa Singh & Sons,
409, V.P. Road,
Bombay-4.
103. P.A.S. Industries,
Metia Khan,
New Delhi.
104. Cao-Flex Industries,
1st Bhatwadi, Girgaum,
Bombay-4.
105. Surjit Singh & Bros.,
349, Vithalbhai Patel Road,
Bombay-4.
106. A.P. Industrial Corporation,
304, S.V.P. Road,
Bombay-4.
107. Appex Auto Agencies,
2-B, Tribhuvan Road,
Bombay-4.
108. Deo-Key Industries,
Lake Road, Bhandup,
Bombay-78.
109. Orient Auto Industries,
30, Tribhuvan Road,
Bombay-4.
110. The Lamington Automobile Co.,
363, Vithalbhai Patel Road,
Bombay-4.
111. Bombay Commercial Syndicate,
349, Lamington Road,
Bombay-4.
112. Industrial Corporation of India,
377, V.P. Road,
Bombay-4.

113. Sagar & Sons,
24-C, Bhatia Bldg.,
Mahim, Bombay-16.
114. V.S. Roy & Co.,
183/185, Lohar Chawl,
Bombay-2.
115. Raab Manufacturing Co.,
Lamington Road,
Bombay-7.
116. Automac Engineers,
Wadala,
Bombay-31.
117. Engine Rabuilders,
35, Banham Hall Lane,
Bombay-4.
118. Bright Rubber Works,
Koliwada,
Thana.
119. Motor Repowering Service,
Girgaon Road,
Bombay-4.
120. Allied Business Enterprises,
41, Hamam Street,
Bombay-4.
121. Dalip Manufacturing & Co.,
Lower Parel,
Bombay-13.
122. Sant Motor Stores,
V.P. Road,
Bombay-4.
123. Indian Overseas Commercial Concern,
27, Kannedy Bridge,
Bombay-4.

124. Spring & Auto Corporation,
Lamington Road,
Bombay-4.
125. Frontier Sales Corpor.,
14, Tribhuvan Road,
Bombay-4.
126. Radiator Sales & Service,
Gamdevi,
Bombay-7.
127. Allena (India) Agencies,
V.P. Road,
Bombay-4.
128. Hygrade Industries,
Vikhroli,
Bombay.
129. The Electrical Stores Co. (P) Ltd.,
112, Narkoldanga Main Road,
Calcutta-54.
130. Auto Filters (India).
52, Bamanji Master Road,
Opp. Kalbadevi Post Office,
Bombay-2.
131. Precision Components Pvt. Ltd.,
Andheri-Kurla Road,
Marol Naka,
Bombay-5.
132. Popular Auto Industries,
William Compound,
Opp. Orleem Church,
Malad, Bombay-64.
133. Popular Automobile Industries,
5233-P, Kannady Bridge,
Bombay-4.

134. New Haven Engineering Company,
Nanjee Building,
2nd Floor,
17-P. Horniman Circle, Fort,
Bombay-1.
135. Sunder & Kapoor,
107, Commerce House,
Meadows Street,
Bombay.
136. Supreme Radiators Mart.
Shop No. 12,
Dwarkadas Building,
Duncan Road, Cross Lane,
Bombay-3.
137. Vashwant Tukaram Waghdar,
377-A, V.P. Road,
Behind Advocate Holekar,
Ralewadi, Bombay-4.
138. Yojana Udyog (P) Ltd.,
325, Kalbadevi Road,
Bombay-2.
139. Corporation Automobile Works,
4633, Dayanand Road,
Daryaganj,
Delhi.


B. Producers Association

- *1. The Secretary,
All India Automobile and Ancillary Industries Association,
Bombay.
2. The Federation of Associations of Small Industries of India,
67-71, Tamarind Lane,
Fort Chambers,
Bombay-1.

C. Government Departments

1. The Director General of Technical Development,
(Automobile Ancillaries Directorate),
New Delhi.

Replies have also been received from

- (i) D.G.T.D.,
L.M.E. Directorate,
New Delhi.
 - (ii) D.G.T.D.,
Rubber Directorate,
New Delhi.
 - (iii) D.G.T.D.,
Electrical Directorate,
New Delhi.
 - (iv) D.G.T.D.,
E.P.E. Cell,
New Delhi.
 - (v) Trade Development Authority,
New Delhi.
 - (vi) Indian Standards Institution,
Nanak Bhavan,
New Delhi.
- 
- *2. The Development Commissioner for Small Scale Industries,
Ministry of Industrial Development,
New Delhi.

D. Embassies

- *1. The Consul General,
Consulate General of India,
3, East 64th Street,
New York, N.Y. 10021.
- *2. Minister Economic,
High Commission of India,
India House,
Aldwych, London, W.C.2.

3. The Counsellor (Commercial),
Embassy of India,
Adenauralle, Bonn.
4. The First Secretary,
Embassy of India,
Via Francesco Denza,
Rome.
- *5. The Counsellor,
Embassy of India,
8, Boulevard De La Madelio,
Paris 9-E.
- *6. The First Secretary (Com.),
Embassy of India,
Minau Chiyoda-Ku,
Tokyo (Japan).

E. Consumers

(i) Transport undertakings

1. Chief Executive Officer,
Andhra Pradesh State Road Transport Corporation,
Mushirabad,
Hyderabad-20.
2. Transport Manager,
Ahmedabad Municipal Transport Service,
Transport House,
Outside Jamalpur Gate,
Ahmedabad-17.
3. Director,
State Transport, Assam,
Shillong (Assam).
4. General Manager,
Bihar State Road Transport Corporation,
Sultan Palace,
Patna-1.

- *5. General Manager,
Bombay Electric Supply & Transport Undertaking, BEST
House,
Ormiston Road,
Post Box No. 192,
Bombay-1.
6. General Manager,
Calcutta State Transport Corporation,
5, Nilguna Road,
Belghoria,
Calcutta-56.
7. Managing Director,
Central Road Transport Corpn. Ltd.,
18, Rabindra Sarani,
Poddar's Building,
Calcutta-1.
- @8. General Manager,
Chandigarh Transport Undertaking,
Chandigarh Administration,
Chandigarh.
- *9. Addl. General Manager,
Delhi Transport Undertaking,
Delhi Parivahanalya,
Indraprastha Estate,
New Delhi-1.
10. Administrative Officer,
Durgapur State Transport Service,
Durgapur-4 (Burdwan).
11. Vice Chairman & General Manager,
Gujarat State Road Transport Corpn.,
Central Offices,
Vahan Vyavahar Bhavan,
Ahmedabad-1.

12. Provincial Transport Controller,
Haryana,
Chandigarh.
- @13. General Manager,
Himachal Government Transport,
Wynstay,
Simla-1.
14. Addl. Transport Commissioner,
J & K Govt. Transport Undertaking,
Hotel Road,
Srinagar (Kashmir).
15. Chairman & General Manager,
Kerala State Road Transport Corpn.,
Fort, Trivandrum.
16. Transport Manager,
Kolhapur Municipal Transport,
Subhah Store,
Kolhapur. (Maharashtra).
17. General Manager,
Madhya Pradesh State Road Transport Corporation,
Bairagrh,
Bhopal.
- @18. Director,
Madras State Transport Department,
Transport House,
Mount Road,
Madras-2.
- @19. General Manager,
Maharashtra State Road Transport Corporation,
Maharashtra Vahatuk Bhawan,
Bellasis Road, Byculla,
Bombay-8.

- @20. General Manager,
Mandi Kulu Road Transport Corporation,
Mandi (Himachal Pradesh).
21. General Manager,
Manipur State Transport Department,
Imphal.
22. General Manager,
Mysore State Road Transport Corporation,
Central Office, Shakti Nagar,
K.H. Road,
Bangalore-25.
23. Chief Executive Officer,
North Bengal State Transport Corporation,
Cooch-Behar.
24. Chairman,
Orissa State Road Transport Corporation,
Cuttack.
25. General Manager,
Orissa Road Transport Co. Ltd.,
P.O. : Berhampur,
Distt. Ganjam (Orissa).
26. General Manager,
Pepsu Road Transport Corporation,
Patiala.
27. Transport Manager,
Poona Municipal Transport,
Shankar Shet Road,
Poona-9.
28. Provincial Transport Controller,
Punjab, 30, Bays Building,
3rd Level, Sector—17,
Chandigarh.

29. Chairman-cum-General Manager,
Rajasthan State Road Transport Corporation,
Parivahan Marg,
Jaipur.
30. Transport Manager.
Sholapur Municipal Transport Undertaking.
Budhawar Peth,
Sholapur-2.
31. State Transport Commissioner,
Uttar Pradesh,
Lucknow (U.P.).
32. Singh Transport Co.,
275, Reay Road,
Bombay-10.
33. Hanumanprasad Laxminarayan,
207, Maharshi Debendra Road,
Calcutta-7.
- *34. Central Road Transport Corporation,
18, Rabindra Sarani,
Calcutta-1.
35. Southern Roadways Pvt. Ltd.,
Usilampathi Road, Kochadai,
Madurai.
- @36. Ashoke Transport Agency,
94, Chittaranjan Avenue,
Calcutta-12.
37. United Transport Co.,
Mukhtiyargunj,
Hyderabad.
38. Muzaffarpur Motor Transport Co-operative Society Ltd.,
Motijhil, Muzaffarpur.

39. Anjaneya Motor Transport Pvt. Ltd.,
225, Cauvery Road,
Erode-3.
- *40. Bombay Andhra Transport Co.,
113, Bhandari Street,
Chakala, Bombay.
- *41. Bharat Transport Company,
Sardar Patel Marg,
Allahabad.
42. Capital Bus Service Pvt. Ltd.,
20/1, Asaf Ali Road,
New Delhi-1.
43. G. Shantilal Transport Co.,
3, Cement Chawl, Katha Bazar,
Bombay-9.
44. The Hanuman Transport Co. Pvt. Ltd.,
76, Badagabettu,
Udipi.
45. Jaipur Golden Transport Co. Pvt. Ltd.,
XII/4736-41, Roshanara Road,
Delhi-7.
- @46. Kilburn & Co. Ltd.,
Road Transport Department,
2, Fairlie Place,
Calcutta-1.
- @47. Kumaon Motor Owners' Union Ltd.,
Kathgodam, Uttar Pradesh.
48. M.G. Brothers Lorry Service,
Yemmiganur,
(Kurnool Distt.).

- @49. M. Tilak & Company (Jamshedpur),
'Anand Bhuvan', Barendrapur,
24, Parganas,
West Bengal.
50. New India Transport Co.,
18, Tarachand Dutt Street,
Calcutta-1.
51. Savani Transport Private Ltd.,
163, D'Mello Road,
Bombay-1.
- *52. S.C. Bros., Lorry Transport Service,
41, Narapimha Chettiar Road,
Salem-2.
- @53. Transport Corporation of India Private Ltd.,
25-27, Kalikrishna Tagore Street,
Calcutta-7.
- @54. The General Manager,
Burmah Shell Oil Storage & Distributing Co. of India Ltd.
Burmah Shell House,
Ballart Estate,
Bombay-1
55. H. Butani & Company,
Shrofi Bhavan,
P.D' Mello Road,
Opp. Carnac Bunder,
Bombay-1
- @56. The Model Co-operative Transport Society Ltd.,
Mehrauli Road,
Gurgaon.
57. Sree Neelakanteswana Swamy Motor Service,
Yenimlganur,
(Kurnool Dist.)

- @58. Kolhapur Motor Transport Producers' & Consumers' Co-operative Society Ltd.,
1298 'C' Ward, Laxmipuri,
Kolhapur.

(ii) *Automobile Manufacturers*

- *1. The Hindustan Motors Ltd.,
P.O. Uttarpara,
Distt. Hooghly,
West Bengal.
- *2. The Premier Automobiles Ltd.,
Agra Road, Kurla,
Bombay-70. (AS).
- @3. The Standard Motor Products of India Ltd.,
29, Mount Road,
Madras-2.
- 4. The Ashok Leyland Ltd.,
"TIAM" House,
11/12, North Beach Road,
Madras-1.
- 5. The Tata Engg. & Locomotive Co. Ltd.,
(TELCO) Bombay House,
24, Bruce Street, Fort,
Bombay-1
- *6. The Mahindra & Mahindra Ltd.,
Gateway Building,
Apollo Bunder,
Bombay-1.
- *7. The Bajaj Tempo Ltd.,
Bombay-Poona Road
Chinchwad,
Poona-1.
- 8. The Simpson & Co. Ltd.,
Post Box No. 303,
202-3, Mount Road,
Madras-2.

ANNEXURE B
(Vide Paragraph 1.2)

*List of Persons who attended the Group Discussions on Friday,
the 20th July, 1973*

A. All India Automobile & Ancillary Industries Association

1. Dr. Pranlal Patel
2. Shri V. R. Sivaraman
3. Shri S. Panikar
4. Shri D. R. Sondhi
5. Shri J. T. Dolwani
6. Shri H. N. Khira
7. Shri Muthukrishnan
8. Shri P. V. Shah
9. Shri P. N. Hyde
10. Shri P. C. Sekharan
11. Shri M. S. Shastri
12. Shri Ratilal.

B. Association of Indian Automobile Manufacturers

1. Shri C.V.K. Murthy Rao
2. Shri J. C. Talaulikar
3. Shri K. R. Mondkar
4. Shri P. H. Ghyara
5. Shri D. Raghunath.

C. Federation of Associations of Small of India

1. Shri D. C. Deo
2. Shri B. M. Shah
3. Shri V. R. Shah
4. Shri P. B. Shah.

D. Government Departments

- | | |
|--|--------------|
| 1. Shri N. Radhakrishnan—Ministry of Heavy Industries. | |
| 2. Shri K. Sankarnaryanan | } D.G.T.D. |
| 3. Shri Inamdar | |
| 4. Shri J. V. Bapuraj | } D.C.S.S.I. |
| 5. Dr. J. D. Verma | |
| 6. Shri S. M. Razvi. | I.S.I. |

ANNEXURE C

(Vide Paragraph 2.3)

Statement showing number of units (licensed and in production) of automobile ancillaries together with details of capacities

(Capacity figures in Nos. unless otherwise stated)

Item	No. of units Licensed	No. of units in production	Capacity	
			licensed	Installed
1	2	3	4	5
1. Pistons	3	3	34,80,000	25,20,000
2. Piston rings	3	3	2,55,00,000	2,45,00,000
3. Gudgeon pins	4	4	40,02,500	30,72,500
4. Circlips	2	2	1,07,00,000	1,07,00,000
5. Cylinder liners	3	3	4,92,000	4,92,000
6. Engine valves	3	3	73,00,400	54,00,000
7. Valve guides	1	1	10,00,000	4,80,000
8. Valve tappets	1	1	3,00,000	3,00,000
9. Valve inserts	1	1	10,00,000	1,80,000
10. Push rods	2	2	8,00,000	7,20,000
11. Filters	5	5	4,95,400	6,21,600
12. Filter elements/inserts	4	4	40,80,000	61,28,000
13. Gaskets	3	3	10,70,00,000	10,10,00,000
14. Finished crankshaft	2	2	28,800	40,800
15. Flywheelring gears	1	1	1,02,000	1,02,000
16. Thinwalled bearings/bushings washers etc.	2	2	70,00,000	1,32,00,000
17. Thickwalled bearings, metals etc.	1	1	2,40,000	1,50,000

ANNEXURE C—Contd.

1	2	3	4	5
18. Valves	1	1	10,000	10,000
19. Clutch cover assembly .	5*	5	3,32,220	2,33,100
20. Clutch plates	3	3	5,21,520	5,10,000
21. Clutch facings and brake linings	5	5	NA	NA
22. Torque converters . . .	1	1	2,400	2,400
23. Water pumps	1	1	20,000	20,000
24. Radiators	7	7	1,24,200	2,50,200
25. Oil/Air cooler	1	1*	6,000	..
26. Oil/Water cooler	1	1	1,800	N.A.
27. Intercooler and after cooler	1	1	18,000	18,000
28. Water thermostat	1	1	1,20,000	1,20,000
29. Carburettors	3	3	1,76,000	1,76,000
30. Fuel pumps	2	2	1,00,000	1,00,000
31. Fuel pump diaphragms	2	2	2,00,000	2,00,000
32. Carburettor kit	1	1	50,000	50,000
33. Multi cylinder pumps	1	1	77,000	81,600
34. Single cylinder pumps .	3	3	1,84,080	3,34,080
35. Delivery valves	4	4	17,89,730	23,14,000
36. Elements	4	4	21,77,100	21,82,000
37. Nozzles	4	4	23,15,150	21,70,000
38. Nozzle holders	3	3	6,06,000	7,86,000
39. Oil lubricating rotor pumps	1	1	1,44,000	96,000
40. Spark plug insulators .	1	1	12,00,000	75,00,000
41. Spark plugs	2	2	27,60,000	33,36,000
42. Switches	7	7	9,29,000	14,90,000

*Includes one heavy duty.

ANNEXURE C—*Contd.*

1	2	3	4	5
43. Lamps/lights . . .	7	7	9,48,000	14,80,000
44. Electric horns . . .	7	7	4,70,000	7,31,000
45. Horn relays . . .	5	4	3,83,000	2,52,000
46. Ignition coils . . .	4	3	1,95,000	3,71,000
47. Voltage regulators . .	6	6	2,80,500	3,02,500
48. Distributors . . .	3	3	1,17,500	1,45,500
49. Armature for starter and generator	1	1	72,000	72,000
50. Field coils for starter and generator	1	1	40,000	40,000
51. Commutators . . .	1	1	5,00,000	5,00,000
52. Contact points . . .	1	1	1,00,000	1,80,000
53. Condensers . . .	2	1	70,000	1,50,000
54. Wiper motors . . .	3	3	1,80,000	2,02,000
55. Windscreen arms and blades	1	1	2,00,000	2,00,000
			(5,00,000)@@	(5,00,000)@@
56. Dynamos/Generators . .	5	5	1,95,000	1,49,000
57. Starter motors . . .	5	5	1,69,000	1,34,000
58. Fylwheel magneos . . .	2	2	1,40,000	1,40,000
59. Propeller shafts . . .	1	1	2,00,000	2,00,000
60. Universal joint crosses . .	1	1	1,80,000	1,80,000
61. Shock absorbers . . .	4	4	18,00,000	12,92,000
62. Tie rod ends/drag links/steering linkage	2	2	N.A.	N.A.
63. King pins . . .	7	7	7,15,200	5,60,700
64. Shackle pins . . .	3	3	4,92,000	2,76,000
65. Axle shafts . . .	3**	3**	61,000	61,000

@@Figures inside brackets are for blades.

**One produces torsin bars.

ANNEXURE C—*Concl'd.*

1	2	3	4	5
66. Steering gears . . .	1	1	20,000	60,000
67. Tipping gears . . .	1	1	3,000	3,000
68. Brake assembly (Sets) .	3	3	2,22,000	N.A.
69. Hydraulic brake hoses .	2	2	N.A.	N.A.
70. Brake drum assembly .	2	2	38,400	38,400
71. Brake parts . . .	1	1	12,00,000	12,00,000
72. Brake hoses (Mtrs). . .	2	2	3,70,610	..
73. Wheels . . .	2	2	6,20,000	6,20,000
74. Tyre tube valves, cores and caps	1	1	64,00,000	64,00,000
75. Cores and caps . . .	1	1	1,00,00,000	1,00,00,000
76. Panel Instruments . . .	2	2	7,10,000	7,10,000
77. Tachographs . . .	2	1	11,000	5,000
78. Oil seals . . .	7	7	58,15,000	82,38,000
79. Die cast parts (Tonnes) .	2	2	1,272	..
80. Automobile pressings .	3	3	N.A.	N.A.
81. Auto spokes (Gross) .	1	1	60,000	60,000
82. Control cables . . .	3	3	..	..
83. Window regulator assembly, door locks, handles etc.	1	1	..	..

Source : D.G.T.D.

ANNEXURE D

(Vide Paragraph 2.4.1)

Statement showing quantity and value of automobile ancillary components and parts produced in the country during the years 1967-68 to 1971-72

Sl. No.	Particulars	1967-1968		1968-1969		1969-1970		1970-1971		1971-1972	
		Quantity in ('000 Nos.)	Value in (Rs. lakhs.)	Quantity in ('000 Nos.)	Value in (Rs. lakhs.)	Quantity in ('000 Nos.)	Value in (Rs. lakhs.)	Quantity in ('000 Nos.)	Value in (Rs. lakhs.)	Quantity in ('000 Nos.)	Value in (Rs. lakhs.)
1	2	3	4	5	6	7	8	9	10	11	12
A. Engine Parts											
1	Pistons	1,475	512.57	1,807	657.30	2,206	773.15	1,812	728.30	1,739	801.28
2	Piston pins	1,315		1,997		2,238		2,187		2,239	
3	Piston rings	11,917	139.81	13,944	164.25	18,499	237.80	18,051	192.87	17,180	209.96
4	Cylinder Liners	250	45.53	245	46.07	282	64.59	256	56.73	229	54.06
5	Gaskets	40,312	186.01	54,754	183.44	58,147	205.94	50,855	236.80	64,620	268.56
6	Engine Valves . . . . .	..	146.61	3,741	149.98	3,812	158.80	4,254	199.35	4,705	232.95
7	Valve guides . . . . .	..	..	149	1.86	233	3.82	271	5.56	265	4.72
8	Valve Tappets . . . . .	..	..	106	3.40	138	4.52	139	4.98	118	4.28
9	Carburettors†	22	15.21	46	28.44	28	23.24	42	56.35	67	106.30
10	Fuel Pumps (Petrol)†	42	8.15	51	10.62	54	12.46	49	21.89	68	41.29
11	Fuel Pumps (Diesel) Multi-cylinder.	42	261.47	51	313.75	63	384.22	71	385.64	91	568.64
12	Fuel Pumps (Diesel) single cylinder.	266	116.83	330	139.91	407	167.00	290	132.06	259	138.97
13	Fuel pumps (Diesel)* Nozzles	..	242.65	1,156	152.69	2,215	298.29	2,287	320.28	2,252	363.77

14 Fuel pumps (Diesel)* Nozzle holders*	..	118.71	560	121.84	722	162.61	619	142.09	629	148.05
15 Fuel pumps (Diesel)* Delivery valves*	..	42.37	1,104	37.54	2,036	48.15	2,173	58.23	2,959	96.16
16 Fuel pumps (Diesel)* Elements*	1,402	153.82	1,225	165.91	1,933	170.11	2,204	198.99	2,644	294.98
17 Filters (Air Fuel Oil) .	266	55.64	475	84.71	547	133.90	434	126.24	311	95.51
18 Filter Elements/cartridges/In-seris.	N.A.	123.13	1,642	144.00	3,322	193.83	3,168	156.90	1,064	75.91
19 Fuel/oil lines .	329	19.21	509	29.10	791	41.80	..	33.39	751	50.90
20 Timing Chains .	176	28.78	..	40.00	265	40.10	265	40.10	N.A.	63.85
21 Flywheel Ring gears .	59	14.17	62	17.30	72	21.13	87	26.11	71	22.61
22 Water pump parts .	..	6.28	..	5.28	..	8.58	..	9.56	..	14.17
23 Radiators .	105	326.39	115	352.78	128	420.17	131	455.31	149	538.67
24 Thinwall/Thickwall Bearings/Bushes	7,213	233.92	8,670	289.31	9,964	326.63	8,625	317.69	9,212	350.12
25 Oil Lubricating Rotor/Pumps .	55	21.35	57	23.02	52	20.77	63	26.73	47	23.84
26 Sintered Bearings Bushes .	7,672	46.73	8,690	60.52	15,049	84.54	16,581	110.12	..	112.57
27 Fan Belts .	..	29.24	847	27.94	982	36.14	986	38.13	561	21.44
28 Engine Mountings .	..	12.14	..	8.30	579	22.90	674	19.59	539	22.01
29 Other Engine Parts .	..	4.83	..	5.88	..	16.76	..	28.55	..	68.83
TOTAL .		2,912.26	3,265.14	4,081.95		4,128.54		4,794.40		

B Electrical Parts

30 Starter Motors .	95	263.96	102	327.47	124	393.20	142	456.96	194	527.50
31 Generators .	93	140.95	124	196.48	125	203.18	142	247.42	137	257.97
32 Voltage regulators .	138	58.12	250	78.43	273	87.71	339	106.16	417	120.77

ANNEXURE D—Contd.

1	2	3	4	5	6	7	8	9	10	11	12
33	Distributors and Parts	46	38.29	64	43.93	59	36.60	75	47.76	204	48.70
34	Ignition coils	146	27.38	184	32.71	64	10.62	264	48.89	316	56.92
35	Ignition Switches	30	3.17	32	3.72	26	2.84	32	3.89	41	4.77
36	Spark Plugs	1,849	48.11	2,101	56.16	2,487	66.63	3,128	87.09	3,531	110.85
37	Other Electrical Parts	..	58.17	..	67.55	..	63.52	..	58.01	..	119.13
TOTAL			638.15		806.45		864.30		1,056.18		1,246.61
C. Drive, Transmission & Steering Parts :											
38	Clutch Assembly	106}	222.10	111}	232.58	112}	308.29	131}	359.98	180}	535.31
39	Clutch plates/Discs.	227}		286}		300}		320}		463}	
40	Clutch Facings (Tonnes)	(140)	27.84	(121)	40.40	(183)	53.26	(254)	72.41	(272.3)	83.10
41	Tie Rod Ends/Dragslinks	737	118.82	823	142.10	950	160.96	960	156.38	949	171.07
42	Steering Wheels	85	35.10	101	38.93	75	27.58	59	24.58	60	25.50
43	Steerings Gears	14	29.11	24	54.07	25	59.59	32	91.29	34	98.95†
44	Gears and Shafts	..}		147}	112.77	N.A.}	174.67	..}	355.17	..}	336.50
45	Crown Wheels and Pinions	..}		10}		N.A.}		..}		..}	
46	Propeller shiftst	46}	125.37	79}	185.80	66}	175.64	78}	220.74	91	187.46
47	Universal Joints	..}		..}		..}		..}		239	82.07
48	Axle shafts	32	26.76	46	34.08	117	83.26	151	106.21	147	95.90
49	King Pins	251	35.49	264	41.30	360	53.05	305	79.30	260.	67.35
50	Oil Seals.	6,855	108.95	7,064	111.43	7,400	126.35	6,805	112.82	8,378	147.41

51 Misc. Helical Springs (Clutch, Valve Springs etc.)	..	109.94	..	119.87	..	120.14	..	203.79	..	..
52 Wheels	536	457.13	594	530.58	657	602.29	657	692.12	790	901.99
TOTAL		1,296.61		1,643.91		1,945.08		2,474.79		2,732.61

D. Suspension and Braking Parts

53 Leaf Springs (Tonnes)	24,518	539.40	24,166	523.74	26,651	680.25	27,286	811.03	31,800	927.30
54 Coil Springs (Tonnes)	..	..	..	18.24	..	19.87	565	17.06	638	20.03
55 Shock Absorbers	672	240.14	1,004	356.28	1,181	366.76	1,313	452.05	1,409	500.48
56 Hydraulic Brake Assembly (V. Sets)	..	..	177	411.88	84	490.32	96	583.10	81	716.38
57 Air Brake Assembly†	..	..	29	225.02	31	247.59	32	255.10	38	371.59
58 Brake Drums . . . . .	..	21.83	33	25.67	37	28.14	51	33.29	33	26.96
59 Brake Linings (Tonnes)	1,797	334.07	1,767	343.15	2,186	382.32	2,254	438.34	2,139	421.28
60 Brake Hoses	400	41.10	116	21.31	367	49.70	..	60.80	217.	54.00
61 Brake fluid . . . . .	..	39.81	..	..	..	..	..	..	..	..
62 Spring Shackles & Pins etc..	..	39.82	..	28.18	..	84.96	..	86.21	..	..
TOTAL		1,783.95		1,953.47		2,349.91		2,737.07		3,038.02

E. Electrical Equipments

63 Head Lights	197	68.17	267.	89.41	401	112.54	363	118.10	380	128.38
64 Other Lights	486	58.22	369	43.20	429	32.40	453	84.01	415	56.49
65 Panel Instruments . . .	..	133.17	..	125.75	..	140.89	..	183.49	..	123.32
66 Speedometer & Control cables	..	..	451	34.36	..	17.51	..	34.82	1,185	112.98
67 Wind screen wipers . . .	76	44.63	95	5.844	86	55.41	106	76.71	119	92.32

ANNEXURE D—Contd.

1	2	3	4	5	6	7	8	9	10	11	12	
68	Wiper arms and blades	..	13.13	435	16.42	441	33.86	472	25.74	513	22.54	
69	Electric horns	..	187	49.13	266	64.91	273	65.36	313	67.28	295	65.38
70	Horn Relays	..	63	3.38	137	4.93	126	5.09	133	5.19	152	6.26
71	Auto Bulbs	..	..	39.19	..	43.28	..	37.52	..	45.39	..	..
72	Flasher Units	..	114	5.12	192	10.65	199	8.50	208	10.68	131	7.95
73	Sealed Beams	..	136	7.28	..	..	107	7.52	24	0.99	42	3.35
74	Switches	..	..	17.10	380	26.99	553	22.10	545	33.64	517	39.25
TOTAL		..	438.52	..	518.34	..	538.70	..	686.04	..	658.22	
F. Chassis and Body Parts												
75	Silencer and Tail Pipes	..	93	10.46	86	6.79	..	20.38	176	18.63	N.A.	N.A.
76	Window regulators	..	108	9.67	113	10.21	136	13.03	124	11.80	130	12.38
77	Door channels	..	..	6.10	..	..	..	..	..	..	..	..
78	Door locks, Remote Control and locking Devices	..	27.87	..	32.89	..	33.10	..	32.40	243	25.04	
79	Rubber parts	..	73.86	..	58.81	..	63.39	..	70.07	..	60.44	
80	Sheet Metal parts	..	38.17	..	52.61	..	204.67	..	306.01	..	232.21	
81	Ferrous and Non-ferrous Castings	..	156.02	..	149.81	..	217.98	..	228.78	..	218.70	
82	Other body parts	..	..	..	..	..	..	..	..	..	7.24	
TOTAL		..	322.15	..	311.12	..	552.55	..	667.69	..	556.01	

G. Miscellaneous

83 Buses and trucks and other bodies.	6	607.57	6	626.02	6	899.01	6	989.71	6	1,063.50
84 Tippings Gears	..	..	N.A.	N.A.	..	67.05	2	97.70	..	138.66
85 Ball and Roller Bearings (for automobiles only)	..	186.24	N.A.	N.A.	2,850	256.50	..	318.73	..	..
86 Tyre Tube Valves†	..	37.53	4,804	43.93	4,530	41.21	6,512	60.15	..	66.09
87 Garage Equipment†	..	54.04	..	48.51	..	56.07	..	83.81	..	81.63
88 Self Locking Nuts	..	14,463	32,53	9,831	26.27	13,651	36.55	..	..	..
89 Taxi Meters	..	1	18.96	1	21.95	1	12.32	1	10.92	13.28
90 Jacks	..	18	11.21	7	6.98	..	..	..	..	..
91 Miscellaneous	..	..	86.13	..	67.80	..	68.06	..	109.13	94.36
TOTAL	..	1,034.21	..	841.46	..	1,436.77	..	1,670.15	..	1,457.52
GRAND TOTAL	..	8,425.84	..	9,339.89	..	11,769.26	..	13,420.46	..	14,483.39

†Inclusive of spares.

Source : AIA & AIA

N.B.—(i) Quantity of the components in 1971-72 marked with (*) includes original fitment but value only for spares.

(ii) To maintain comparability, value of 'Rubber Parts' reported under 'Misc.' Group in 1971-72, have been included under 'Chassis and Body Parts'.

ANNEXURE E
(Vide Paragraph 3.1)
Statement showing the estimates of demand for various ancillary components as worked out by the Development Council of Automobiles and the Working Group on Transport and Allied Equipment (for 1973-74 and 1978-79)

(In '000 Nos.)

Sl No.	Components	1973-74					1978-79				
		Estimates of Development Council					Estimates of Working Group				
		Original equipment Demand	Replacement Demand	Total Demand	Total Demand	Total Demand estimated by working Group	Original equipment demand	Replacement Demand	Total Demand	Total Demand	Total Demand
1	2	3	4	5	6	7	8	9	10	11	12
1	Piston @	2,198	3,007	5,205	3,200	2,818	3,632	6,450			
2	Piston Pins@	2,198	3,007	5,205	3,200	2,818	3,632	6,450			
3	Piston Rings@	9,932	27,400	37,332	28,000	10,170	27,830	38,000			
4	Gaskets (Vehicles sets)	..	..	96,500	74,000	30,000	1,35,000	1,65,000			
		(466) (sets) (2,062)(sets) (2,528)(sets)									
5	Engine Valves@	3,996	7,946	11,942	6,700	4,036	8,434	12,470			
6	Valve guides .	2,392	3,521	5,913	**	3,280	4,290	7,570			
7	Valve Springs	2,392	1,349	3,741	**	..	..	..
8	Valves Tappets	2,392	1,349	3,741	**	3,280	1,830	5,110			
9	Push Rods .	2,392	1,349	3,741	**	3,280	1,830	5,110			
10	Timing Chains	341	287	628	**	..	..	..
11	Carburettors .	704	29	733	250	1,018	52	1,070			

12	Carburettor Kits	1,749	1,749	**	..	..	..
13	Fuel Pump (Petrol)	109	7	72	198	12	210
14	Fuel Pumps (Kits) . . . . .	..	538	**	..	..	..
15	Fuel Injection Equipment :						
	(a) Multicylinder pumps@	160	4	90	182	8	190
	(b) Single Cylinder pumps@	750	17	400	320	15	335
	(c) Nozzles@	1,548	6,634	5,800	1,206	6,044	7,250
	(d) Nozzle Holders @	1,548	39	800	1,206	40	1,246
	(e) Pump elements (DI.)@	1,548	6,046	5,400	1,206	5,444	6,650
	(f) Delivery Valves@	1,548	6,046	5,400	1,206	5,444	6,650
16	Fuel filters@	1,019	9	700	700	8	708
17	Oil filters@	389	2	900	700	6	706
18	Air filters@	599	3	1,520	1,520	7	1,527
19	Fuel filter inserts@* . . . . .	..	10,763	**	..	8,670	8,670
20	Oil filter elements@* . . . . .	..	3,447	**	..	7,925	7,925
21	Fly-wheel Ring gears	256	33	140	365	50	415
22	Air filter elements . . . . .	..	1,080	**	..	..	..
23	Water Pump	256	29	**	..	..	..
24	Water Pump Repair Kit . . . . .	..	700	**	..	..	..
25	Radiators	256	7	160	(365)	(100)	(465)
26	Radiator/cores . . . . .	..	78	**	..	Radiators/cores	..
27	Silencer Mufflers	466	357	**	1,185	470	1,655
28	Thinwalled Bearings@	2,372	3,497	3,500	3,494	6,526	10,020
29	Starter Motors	256	40	180	(000 pairs)	(000 pairs)	(000 pairs)
					365	50	415

ANNEXURE E—contd.

1	2	3	4	5	6	7	8	9				
30	Generators	.	.	.	.	256	40	296	180	365	50	415
31	Voltage Regulators	.	.	.	.	256	388	644	500	365	545	910
32	Distributor Assembly	.	.	.	.	109	14	123	74	198	22	220
33	Distributor Cap, Rotor	.	.	.	.	..	276	276	**	..	..	..
34	Contact Point and Condensers	.	.	.	.	.	.	.	.	.	.	.
35	Ignition Coils	.	.	.	.	119	81	200	**	218	122	340
36	Flywheel Magnetos	.	.	.	.	595	2	597	165	820	3	823
37	Spark Plugs	.	.	.	.	1,035	3,788	4,823	3,500	1,612	6,048	7,660
38	Steering Wheel	.	.	.	.	256	5	261	**	365	5	370
39	Steering Gears	.	.	.	.	256	84	340	140	365	105	470
40	Tie Rod Ends	.	.	.	.	512	935	1,447	1,100	730	1,225	1,955
41	Drag Links	.	.	.	.	125	208	333	..	147	263	410
42	King Pins Pairs (in '000 Nos.)	.	.	.	.	159	489	648	**	187	593	780
								1,300 (Not in '000)				
43	Wheels	.	.	.	.	1,704	8	1,712	750	1,905	8	1,913
44	Wheel Rims	.	.	.	.	200		201	**	800	3	803
45	Clutch Assembly	.	.	.	.	466	75	541	350	865 (excluding 2 & 3 wheelers)	115	480
46	Clutch Discs*	.	.	.	.	..	662	662	**	..	825	825
47	Clutch Linings	.	.	.	.	512	1,209	1,721	1,200	730 (clutch facings)	1,825	2,555
48	Gears (excluding crown wheels Pinions)	.	.	.	.	3,308	1,404	4,712	**	6,806	1,974	8,780

ANNEXURE E—contd.

1	2	3	4	5	6	7	8	9				
73	Flasher Units	.	.	.	.	188	683	871	..	285	955	1,240
74	Tyre-Tube Valves.	.	.	.	.	1,704	148	1,852	..	3,965	315	4,280
75	Tyre-Tube valves cores*	.	.	.	.	..	7,612	7,612	..	..	13,450	13,450
76	Control Cables	.	.	.	.	1,608	931	2,539	..	4,375	2,035	6,410
77	Speedometer	.	.	.	.	398	16	414	..	1,105	50	1,155
78	Panel Instruments..	.	.	.	.	256	14	270	150 (000 sets)	365 (000 sets)	35 (000V sets)	400) (000 V sets)

N.B.—Break-up for O.E. and Replacement Demand are not available in respect of estimates prepared by the Working Group for 1973-74.

.. Estimates of the Working Group for these items for 1973-74 are not available.

@ In respect of these components the demand estimates of the Working Group for 1978-79 are inclusive of demand for the items Earth moving and Construction equipment, Power tillers and I.C. Engines.

* Estimates for these items for 1978-79 are for replacement only.

Sources:—(1) D.G.T.D. (Columns 2 to 4).

(1) A.I.A. & A.I.A. (Columns 5 to 8).

ANNEXURE F

(Vide Paragraph 4.1)

Statement showing selling prices (lowest and highest)* of certain automobile ancillary components during the years 1968 to 1972

(In Rs.)

Group Ancillary Components	Name of the Manufacturer	Units/ Nos./ Sets/ Doz./ etc.	As on 1968				As on 1969			
			Original Equip- ment Prices		Replace- ment Prices		Original Equip- ment Prices		Replace- ment Prices	
			Low (L)	High (H)	Low (L)	High (H)	Low (L)	High (H)	Low (L)	High (H)
1	2	3	4	5	6	7	8	9	10	11
I. Engine Group										
1. Valves	(1) Engine Valves Ltd. Madras.	No.	2.50	L	4.10	L	2.50	L	4.10	L
(a) Inlet	"	"	12.78	H	21.88	H	12.78	H	21.88	H
(b) Exhaust	"	"	2.84	L	4.10	L	2.78	L	4.10	L
2. Valve Springs	(1) Stumpp Schuele Somappa (P) Ltd., Bangalore.	Per 1000 pieces	503.00	L	22.84	H	13.36	H	22.84	H
(a) Inlet	(2) Acme Manufacturing Co. Ltd., Bombay.	No.	2.90	L	4.40	L	2.90	L	4.40	L
(b) Exhaust	"	"	5.13	H	6.64	H	5.13	H	6.64	H
3. Thin wall bearings & Washers. (1) Bimetal Bearings, Madras.	"	"	3.70	L	5.28	L	3.70	L	5.28	L
4. Cylinder Liners	(1) India Pistons Ltd., Madras.	Per piece	8.01	H	"	H	8.01	H	"	H
(2) Goetze India Ltd., New Delhi.	"	"	106.25	H	"	"	106.25	H	"	"
	"	Sets	10.75	L	16.50	L	10.75	L	18.25	L
	"	Per piece	42.50	H	"	"	42.50	H	65.75	H
	"	No.	60.00	L	23.00	L	60.00	L	23.00	L
	"	"	"	H	115.00	H	"	H	115.00	H

*The lowest and the highest quotations are for the same item (say inlet valve) but for different specifications used for different type of vehicles.

ANNEXURE F—contd.

1	2	3	4	5	6	7	8	9	10	11
5. Oil Lubricating pump.	(1) Indequip. Engg. Co. Ltd., Ahmedabad.	No.	38.75	..	..	..	38.75	..	..	..
6. Valve tappets	(1) Perfect Engineering Products Ltd., Bombay.	No.	3.20	L	..	..	3.20	L	..	..
7. Oil Filters.	(1) Kant Engineering Works, Bombay.	No.	5.00	H	..	..	5.15	H	..	..
8. Gaskets	(1) Victor Gaskets India Ltd., Bombay.	No.	14.00	L	..	..	13.40	L	..	..
			16.25	H	..	..	28.00	H	..	..
			3.08	L	5.50	L	3.08	L	5.50	L
			3.50	H	11.00	H	3.50	H	11.00	H
	(2) Payen-Talbro Ltd., Faridabad.	Sets	11.49	L	19.50	L	14.65	L	23.00	L
	(Consisting of 25 to 50 Nos.)		49.60	H	82.00	H	49.60	H	82.00	H
	(1) M/s. Automobile Products Ltd., Bombay.		30.51	L	109.99	L	30.51	L	113.15	L
			245.58	H	426.75	H	249.21	H	426.75	H

No Price available.

II. Clutches

Clutch Assembly.

III. Transmission

IV. Cooling.

1. Radiators.	1. Teksons (P) Ltd., Bombay	Each	..	..	..	..	..	..	..	..
	2. India Radiators Ltd., Madras.	Each	170.00	L	260.00	L	170.00	L	..	L
			500.00	H	700.00	H	500.00	H	870.00	H
	3. Bharat Radiators Ltd., Bombay	Each	115.94	L	..	..	115.94	L	..	..
			315.63	H	..	..	318.98	H	..	..
2. Water pump.	1. Jayant Engineering Works, Poona.	Each	..	L	..	..	..	L	..	..
			103.45	H	..	..	103.45	H	..	..

V. Fuel

1. Carburettors..	1. Carburettors Ltd., Bombay.	Each	64.00 L	140.00 L	64.00 L	140.00 L
	"	"	80.00 H	240.00 H	80.00 H	240.00 H
2. Air Cleaner..	1. Kanti Engineering Works, Bombay.	Each	19.00 L	24.80 L	20.50 L	24.80 L
	"	"	42.50 H	H	65.50 H	H
3. Fuel pumps.	1. Carburettors Ltd., Bombay.	Each	19.00 L	45.00 L	19.00 L	45.00 L
	"	"	26.25 H	50.00 H	26.25 H	50.00 H

VI. Electrical

1. Starter.	1. Lucas TVS Ltd., Madras.	Each	108.05 L	300.00 L	108.05 L	300.00 L
	"	"	550.00 H	1,000.00 H	550.00 H	1,000.00 H
	2. Globe Auto. Electricals Ltd., Bombay.	Each	154.75 L	615.00 L	165.00 L	615.00 L
	"	"	185.00 H	725.00 H	185.00 H	725.00 H
	3. Best & Co. (P) Ltd., Madras	Each	" L	" L	" L	" L
	"	"	388.00 H	810.00 H	499.00 H	810.00 H
2. Generators/Dynamos.	1. Lucas TVS Ltd., Madras.	Each	110.37 L	245.00 L	110.37 L	245.00 L
	"	"	439.00 H	800.00 H	439.00 H	800.00 H
	2. Best & Co. Ltd., Madras	Each	" L	" L	" L	" L
	"	"	207.60 H	651.68 H	310.00 H	651.00 H
	3. Orient General Industries Ltd., Calcutta.	Each	" L	" L	" L	" L
	"	"	96.00 H	225.00 H	96.00 H	225.00 H
3. Distributors.	1. Lucas TVS Ltd., Madras	Each	48.66 L	170.00 L	48.66 L	170.00 L
	"	"	56.75 H	199.52 H	56.75 H	199.52 H
4. Head Lamps	1. Lucas TVS Ltd., Madras.	Each	31.98 L	100.00 L	31.98 L	100.00 L
	"	"	43.35 H	125.00 H	43.35 H	125.00 H
	2. JMA Industries (P) Ltd., New Delhi	Each	10.00 L	25.00 L	10.00 L	25.00 L
	"	"	48.00 H	130.00 H	48.00 H	130.00 H

ANNEXURE F—contd.

1	2	3	4	5	6	7	8	9	10	11
5. Horns	.	.	.	.	.	.	.	.	.	.
	1. Lucas TVS Ltd, Madras	Each	23.00	L	45.00	L	23.00	L	45.00	L
	2. Orient General Industries Calcutta	Each	21.50	L	40.00	L	21.50	L	40.00	L
	3. J.M.A. Industries (P) Ltd., New Delhi	Each	17.50	L	33.50	L	17.50	L	33.50	L
		"	25.00	H	55.00	H	25.00	H	55.00	H
6. Spark Plug.	1. Forbes Forbes Campbell & Co. Ltd., Bombay.	Each	1.20	L	3.95	L	1.20	L	3.95	L
		"		H		H		H		H
7. Windshield wipers	1. Globe Auto Electricals Ltd., Bombay.	Each	43.75	L	150.00	L	43.75	L	150.00	L
		"	72.00	H	235.00	H	72.00	H	235.00	H
8. Switches	1. Lucas TVS Ltd., Madras.	Each	4.95	L	10.80	L	4.95	L	10.80	L
		"	12.00	H	41.00	H	12.00	H	41.00	H
9. Voltage & Current regulator	1. Lucas TVS LTD., Madras	Each	31.38	L	75.00	L	31.38	L	75.00	L
		"	54.00	H	125.00	H	54.00	H	125.00	H
	2. Globe Auto Electricals Ltd., Bombay.	Each	..	..	..	..	..	..	..	..
		"
10. Ignitor coils.	1. Globe Auto Electricals Ltd., Bombay.	Each	11.50	L	28.00	L	11.50	L	28.00	L
		"	22.90	H	45.00	H	22.90	H	45.00	H
VII. Exhaust										
1. Mufflers (silencers)	1. Usha Automobile & Engg. (P) Ltd., Calcutta	Each	11.25	L	12.24	L	11.25	L	12.24	L
		"	..	H	..	H	45.00	H	..	H
2. Tail Pipes..	—Do—	Each	2.55	L	4.72	L	3.72	L	4.48	L
		"	8.70	H	10.40	H	8.70	H	10.40	H

VIII. Propeller Shaft with universal joints.

Propeller Shafts.	Ex-cell-o India Ltd., Bombay	Each	60.00	L	180.00	L	60.00	L	180.00	L
		"	403.00	H	687.00	H	403.00	H	687.00	H

IX. Suspension front including shock absorbers & springs

1. Suspension springs.	Stamm, Scheule & Sonpappa Ltd., Bangalore	Per 1000 Pieces	4,480.00	L	..	..	4,480.00	L	..	..
			20,200.00	H	..	..	13,000.00	H	..	..

X. Rear Axle

1. Axle Shaft (Front Axle shaft)	1. Ex-cell-o India Ltd., Bombay	Nos.	115.00	L	205.00	L	115.00	L	205.00	L
		"	350.00	H	..	..	350.00	H	..	H

XI. Steering

Steering Mechanisms (Steering gears)

—Do.—
Nos.

			190.00	L	312.00	L	195.00	L	312.00	H
		"	324.00	H	406.00	H	303.00	H	406.00	H

XII. Brake with Brake Drums

1. Brake Assembly*	1. Automobile Products of India Ltd., Bombay.		195.15	L	..	L	195.15	L	..	L
		"	281.28	H	..	H	340.00	H	..	H

XIII. Wheels

Wheel.	1. Wheels India Ltd., Madras	Each	20.17	L	45.00	L	20.17	L	45.00	L
		"	178.70	H	340.00	H	302.00	H	340.00	H

XIV. Frame & Chassis

1. King Pins	1. Standard Auto Parts (P) Ltd., Jodhpur.	Per Set	35.00	L	55.00	L	35.00	L	55.00	L
			..	H	..	H	..	H	..	H
2. Shock Absorbers	1. Hydraulics Ltd., Madras.	No.	19.50	L	37.50	L	19.50	L	38.00	L
		"	36.00	H	75.00	H	36.00	H	75.00	H

XV. Body with upholstery .

Prices are not available.

ANNEXURE F—contd.

Group/Ancillary Components														(In Rs.)
	As on 1970				As on 1971				As on 1972					
	Original Equipment Prices	High Replacement Prices	High (H) Equipment (H) Low Prices (L)	High (H) Replacement Prices (L)	Original Equipment Prices	High Replacement Prices	High (H) Equipment (H) Low Prices (L)	Original Equipment Prices	High Replacement Prices	High (H) Equipment (H) Low Prices (L)				
1	12	13	14	15	16	17	18	19	20	21	22	23		
I. Engine Group														
1. Valves														
(a) Inlet	2.50	L	4.10	L	2.50	L	4.72	L	2.50	L	4.72	L		
	12.78	H	21.88	H	12.78	H	25.16	H	12.78	H	25.16	H		
(b) Exhaust	2.78	L	4.10	L	2.78	L	4.72	L	2.78	L	4.72	L		
	13.36	H	22.84	H	13.36	H	26.86	H	13.36	H	26.86	H		
2. Valve Springs	503.00	L	..	..	538.00	L	..	..	..	..	..	..
	2,538.70	H	..	..	2,682.40	H	..	..	..	..	..	..
(a) Inlet	2.90	L	4.40	L	2.90	L	4.40	L	2.90	L	5.06	..		
	5.13	H	6.64	H	5.13	H	6.64	H	5.13	H	7.64	..		
(b) Exhaust	3.70	L	5.28	L	3.70	L	5.28	L	3.70	L	6.07	..		
	8.01	H	..	H	8.01	H	..	..	11.40	H	..	..
3. Thinwall bearings & Washers	9.39	L	..	..	10.50	L	..	..	10.50	L	..	..
	106.25	H	..	..	106.25	H	..	..	106.25	H	..	..

4. Cylinder.	.	.	.	.	.	11-80	L	20-00	L	11-80	L	20-00	L	..	..	..	..
						46-75	H	69-00	H	46-75	H	69-00	H	..	..	..	..
						60-00	L	23-00	L	66-00	L	25-30	L	66-00	L	25-30	L
							H	115-00	H		H	126-50	H		H	126-50	H
5. Oil Lubricating pump	.	.	.	.	.	39-75	..	..	..	41-00	..	..	..	44-00	..	..	..
6. Valve tappets.	.	.	.	.	.	3-50	L	..	..	3-70	L	..	..	3-70	L	..	..
						5-15	H	..	..	5-15	H	..	..	5-15	H	..	..
7. Oil Filters.	.	.	.	.	.	19-72	L	..	..	14-25	L	27-50	L	14-25	L	27-50	L
						28-00	H	..	..	28-00	H	55-00	H	30-25	H	55-00	H
8. Gaskets.	.	.	.	.	.	3-75	L	7-00	L	3-75	L	7-00	L	4-35	L	9-00	L
						6-50	H	12-50	H	6-50	H	12-50	H	8-50	H	14-50	H
						14-98	L	25-50	L	14-98	L	26-00	L	14-98	L	26-00	L
						56-29	H	95-00	H	56-29	H	100-00	H	59-29	H	105-00	H
II Clutches						30-51	L	120-50	L	38-14	L	135-00	L	40-47	L	142-00	L
Clutch Assembly	.	.	.	.	.	300-00	H	465-50	H	300-00	H	525-00	H	300-00	H	525-00	H

No Prices available

III. Transmission

V. Cooling

1. Radiators.	.	.	.	.	.	..	..	..	..	..	..	..	..	..	..	..	..
						..	..	..	..	..	..	..	..	170-00	H	..	..
						210-00	L	..	L	210-00	L	..	L	..	..	..	..
						509-00	H	870-00	H	509-00	H	970-00	H	..	..	..	..
						139-50	L	..	..	139-50	L	..	..	154-30	L	..	..
						361-98	H	870-00	H	396-00	H	..	..	456-90	H	..	..
2. Water pump.	.	.	.	.	.	..	L	..	..	..	L	..	..	..	L	..	..
						103-45	H	..	..	117-50	H	..	..	132-00	H	..	..

ANNEXURE F—contd.

	1	12	13	14	15	16	17	18	19	20	21	22	23
<i>V. Fuel</i>													
1. Carburettors
		64.00	L	140.00	L	64.00	L	140.00	L	64.00	L	140.00	L
		78.50	H	240.00	H	87.00	H	240.00	H	87.00	H	240.00	H
2. Air Cleaner
		20.50	L	..	..	20.50	L	40.00	L	20.50	L	40.00	L
		71.00	H	..	..	71.80	H	120.00	H	71.80	H	120.00	H
3. Fuel pumps.
		19.00	L	45.00	L	23.00	L	52.50	L	23.00	L	52.50	L
		27.50	H	50.00	H	32.50	H	58.50	H	32.50	H	58.50	H
<i>VI. Electrical</i>													
1. Starter.
		119.00	L	330.00	L	153.00	L	330.00	L	..	..	..	..
		591.75	H	1,100.00	H	649.0	H	1,100.00	H	..	..	..	..
		181.50	L	676.50	L	214.00	L	825.00	L	..	..	..	..
		218.66	H	797.50	H	254.00	H	910.00	H	..	..	..	..
		..	L	..	L	..	L	..	L	..	L	..	L
		567.00	H	840.00	H	552.00	H	910.00	H	552.00	H	910.00	H
2. Generators/Dynamos.
		122.00	L	270.00	L	155.00	L	270.00	L	..	..	..	..
		471.92	H	880.00	H	498.00	H	880.00	H	..	..	..	..
		..	L	..	L	..	L	..	L	..	L	..	L
		341.00	H	660.00	H	331.00	H	660.00	H	331.00	H	660.00	H
		96.00	H	225.00	H	96.00	H	225.00	H	155.00	H	225.00	H
3. Distributors.
		54.00	L	187.00	L	72.00	L	187.00	L	..	L	..	L
		58.00	H	220.00	H	86.70	H	220.00	H	..	H	..	H

4. Head lamps.	.	.	.	33-00 L	110-00 L	37-00 L	110-00 L	..	..	..	..
				45-00 H	138-00 H	47-00 H	138-00 H	..	..	..	..
				10-00 L	26-40 L	10-00 L	26-40 L	10-00 L	26-40 L	26-40 L	L
				88-50 H	230-00 H	88-50 H	230-00 H	93-81 H	230-00 H	230-00 H	H
5. Horns				26-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	50-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	34-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	47-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	..	..	..	..
				21-50 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	40-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	21-50 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	40-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	21-50 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	40-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	40-00 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	$\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$
				17-50 L	36-85 L	17-50 L	36-85 L	17-50 L	36-85 L	36-85 L	L
				25-00 H	60-50 H	25-00 H	60-50 H	27-50 H	60-50 H	60-50 H	H
6. Spark Plug	.	.	.	1-20 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	3-95 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	1-20 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	4-65 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	1-20 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	4-65 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	4-65 $\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$	$\left. \begin{smallmatrix} L \\ H \end{smallmatrix} \right\}$
7. Wind Shield wipers	.	.	.	43-75 L	180-50 L	59-00 L	210-00 L	..	L	..	L
				80-00 H	258-50 H	88-00 H	295-00 H	..	H	..	H
8. Switches.	.	.	.	5-00 L	12-50 L	5-00 L	12-50 L	..	L	..	L
				13-00 H	45-00 H	19-00 H	45-00 H	..	H	..	H
9. Voltage & Current regulator.	.	.	.	35-00 L	83-00 L	38-00 L	83-00 L	..	..	..	..
				59-00 H	138-00 H	59-00 H	138-00 H	..	..	..	..
10. Ignition coils	.	.	.	13-50 L	30-50 L	21-00 L	44-00 L	..	..	..	..
				27-00 H	49-50 H	33-50 H	62-00 H	..	..	..	..
V71. Exhaust											
1. Mufflers (silencers)	.	.	.	11-25 L	12-24 L	..	16-00 L	..	L	16-00 L	L
				45-00 H	..	45-00 H	..	45-00 H	..	..	H
2. Tail Pipes.	.	.	.	3-72 L	4-48 L	3-72 L	4-48 L	3-72 L	4-48 L	4-48 L	L
				11-70 H	13-60 H	..	13-60 H	..	H	13-60 H	H

ANNEXURE F—concl'd.

	1	12	13	14	15	16	17	18	19	20	21	22	23
VIII. Propeller Shaft with universal joints.													
Propeller Shafts		70.00	L	186.00	L	70.00	L	186.00	L	72.00	L	196.00	L
		428.00	H	783.00	H	428.00	H	783.00	H	447.00	H	823.00	H
IX. Suspension front including shock absorbers & springs													
1. Suspension Springs		4,740.00	L	..	..	5,000.00	L	..	..	..	..	..	..
		12,500.00	H	..	..	13,500.00	H	..	..	..	..	..	..
X. Rear Axle													
1. Axleshaft (Front axle shaft)		126.00	L	220.00	L	126.00	L	220.00	L	130.00	L	231.00	L
		350.00	H	..	H	350.00	H	..	H	406.00	H	..	H
XI. Steering													
Steering Mechanisms (Steering gears)		212.00	L	280.00	L	212.00	L	280.00	L	228.00	L	294.00	L
		393.00	H	500.00	H	393.00	H	500.00	H	423.00	H	525.00	H
XII. Brakes with Brake Drums													
1. Brake Assembly*		195.15	L	..	L	195.15	L	..	L	254.10	L	..	L
		445.37	H	..	H	459.00	H	..	H	459.00	H	..	H
XIII. Wheels													
Wheel		25.00	L	60.00	L	25.00	L	65.00	L	32.00	L	70.00	L
		302.00	H	465.00	H	302.00	H	465.00	H	425.00	H	650.00	H
XIV. Frame & Chassis													
1. King Pins	L	55.00	L	..	L	61.00	L	..	..	69.00	L
		..	H	..	H	..	H	..	H	..	..	..	H
2. Shock Absorbers		19.50	L	38.00	L	19.50	L	38.00	L	19.10	L	48.00	L
		36.00	H	75.00	H	36.00	H	75.00	H	36.00	H	75.00	H
XV. Body with upholstery													

Prices are not available.

* Prices are available for complete brake set.

ANNEXURE G

(Vide Paragraph 4.1)

Statement showing selling prices (O.E.) of certain automobile ancillary components (i.e. those which were selected for Cost Study in 1968) during the years 1968 to 1972

(In Rupees.)											
Sl. No.	Name of the Manufacturer	Ancillary Components / Specifications.	Units (Each or set)	Prices as on January							Percentage variation in 1972 over 1968
				1-1-1968							
				1-1-1968	1-1-1969	1-1-1970	1-1-1971	1-1-1972	1-1-1972	1-1-1972	
1	2	3	4	5	6	7	8	9	10		
1	M/s. Indequip Engg. Co. Ltd., Ahmedabad.	I. Oil Pumps (No specification given)	Each	38.75	38.75	39.75	41.00	44.00	13.5		
1	M/s. Automobile Products of India Ltd., Madras	II. Clutch Assembly									
		Standard Herald	6½"	Not given	51.84	59.64	69.00	69.00	33.8		
		Fiat	7½"	64.20	64.20	84.50	84.50	90.67	41.2		
		Hindustan	8"	71.86	71.86	86.00	86.00	105.00	46.1		
		Bedford	13"	207.83	208.64	208.64	265.00	295.00	41.9		
		T.M.B.	11"	184.64	184.64	229.50	260.00	296.00	60.3		
1	M/s. India Radiators Ltd., Madras*	III. Radiators.									
		Jeep	Each	180.00	205.00	217.50	217.50	217.50	20.8		
		Ambassador	-	183.00	210.00	225.00	225.00	225.00	23.0		
		Benz	-	472.60	460.00	509.00	509.00	509.00	7.7		
		Layland	-	500.00	500.00	500.00	500.00	500.00	..		
		Fiat	-	176.00	176.00	240.00	240.00	240.00	36.3		
		Bajaj	-	185.00	186.10	215.00	240.00	240.00	29.7		
		Tempo	-	170.00	193.00	210.00	210.00	210.00	23.5		
		F.C. 150 Truck	-	170.00	193.00	210.00	210.00	210.00	23.5		

(In Rupees.)

ANNEXURE G—*contd.*

1	2	3	4	5	6	7	8	9	10	
1	M/s. Lucas T.V.S. Ltd., Madras* IV. Starter, Dynamos Regulators Head Lamps etc.									
	(i) Lucas Starter									
	Herald	.	.	Each	116.31	130.00	153.00	..	31.5	
	Hindustan	.	.	"	108.05	119.00	153.00	..	41.6	
	Standard One Ton	.	.	"	350.81	391.00	..	..	..
	Premier-Fiat	.	.	"	178.05	200.00	175.00	..	..
	(ii) Distributors									
	Hindustan	.	.	"	48.66	57.00	76.00	..	56.2	
	Standard Herald	.	.	"	52.43	58.00	77.00	..	46.9	
	(iii) Lucas Dynamo									
	Hindustan	.	.	"	141.77	158.00	196.00	..	38.3	
	Telco.	.	.	"	149.00	160.17	186.26	..	25.0	
	Simpson	.	.	"	..	..	..	..	..
	Standard	.	.	"	118.72	131.00	163.00	..	37.3	
	Premier Fiat	.	.	"	121.56	135.00	163.00	..	34.1	
	Bajaj	.	.	"	119.74	132.00	162.00	..	35.3	
	Hindustan-Ambassador	.	.	"	110.37	122.00	155.00	..	40.4	
	(iv) Regulator.									
	Simpson	.	.	"	33.75	36.75	40.00	..	18.5	
	Bajaj	.	.	"	34.76	38.00	40.00	..	15.1	
	Standard	.	.	"	33.38	37.00	38.00	..	13.8	
	(v) Head Lamp									
	Hindustan / Ambassador	.	.	"	31.98	33.00	37.00	..	15.7	
	Bedford	.	.	"	41.41	43.00	47.00	..	13.5	
	Fiat	.	.	"	32.40	33.00	37.00	..	14.2	
	Standard—1 ton	.	.	"	43.35	45.00	46.00	..	6.1	
	Herald	.	.	"	34.50	36.00	37.00	..	7.2	

ANNEXURE G—concd.

1	2	3	4	5	6	7	8	9	10
			(ii) Commercial vehicle wheels						
			Mercedes Benz 6.5	Each	151.46	151.46	151.46	184.50	225.50
			Mercedes Benz 7.0	"	158.32	158.32	158.32	191.60	233.60
			Bedford-I 4	"	115.00	115.00	128.35	128.35	179.00
			Bedford-J 6	"	152.00	152.00	168.00	186.00	231.00
									49.0
									47.5
									55.7
									52.0

*The percentage figures in column 10 for the items of these units indicate variations in 1971 over 1968.

Source.—Replies of the question naire furnished by the ancillary producers.

ANNEXURE H

(Vide paragraph 4.1)

Statement showing original equipment and replacement prices of certain specific ancillaries (i.e. items selected for cost study in 1968) and the percentage difference between two types of prices during 1968 to 1972

(Prices in Rs.)

Ancillary Components	Unit (No./Set/ Doz. etc.)	As on January 1968				As on January 1969			
		Original Equip- ment prices (O.E.)	Low (L) and High (H)	Replac- ement Price (R.P.)	Low (L) and High (H)	% difference in R.P. Prices over O.E. Prices	Original Equip- ment prices (O.E.)	Low (L) and High (H)	
1	2	3	4	5	6	7	8	9	
1. Oil Lubricating Pump	.	List Prices are not available.							
2. Clutch Assembly	..	30.51 245.58	L H	109.99 426.75	L H	260.5 73.6	30.51 249.21	L H	
3. Radiators	. Each	170.00 500.00	L H	260.00 700.00	L H	52.9 40.0	170.00 500.00	L H	

ANNEXURE H—*contd.*

1	2	3	4	5	6	7	8	9
4. Starter	. . . Each	108.05	L	300.00	L	177.6	108.05	L
		550.00	H	1000.00	H	81.8	550.00	H
5. Generators/Dynamo	. . .	110.37	L	245.00	L	122.0	110.37	L
		439.00	H	800.00	H	82.2	439.00	H
6. Distributors	. . . Each	48.66	L	170.00	L	249.4	48.66	L
		56.75	H	199.52	H	251.6	56.75	H
7. Regulators	. . . Each	31.38	L	75.00	L	139.0	31.38	L
		54.00	H	125.00	H	131.5	54.00	H
8. Head Lamp	. . . Each	31.98	L	100.00	L	212.7	31.98	L
		43.35	H	125.00	H	188.3	43.35	H
9. Propeller Shaft	. . . Each	60.00	L	180.00	L	200.00	60.00	L
		403.00	H	687.00	H	70.5	403.00	H
10. Brakes	. . .	List Prices are not available.						
11. Wheels	. . .	20.17	L	45.00	L	123.1	20.17	L
		..	H	340.00	H	..	302.00	H

ANNEXURE H—contd.

Ancillary Components	Unit (No./Set/Doz. etc.)	As on January 1969				As on January 1970				
		Replace-ment Price (R.P.)	Low (L) and High (H)	% difference in R.P. Prices over O.E. Prices	Original Equip-ment prices (O.E.)	Low (L) and High (H)	Replace-ment Price (R.P.)	Low (L) and High (H)	% difference in R.P. prices over O'E. Prices	
1	2	10	11	12	13	14	15	16	17	
1. Oil Lubricat-ing Pump.										
2. Clutch As-sembly.	..	113.15	L	270.9	30.51	L	120.50	L	295.0	
		426.75	H	71.2	300.00	H	465.50	H	55.2	
3. Radiators	Each	..	L	..	210.00	L	..	L	..	
		870.00	H	74.0	509.00	H	870.00	H	70.9	
4. Starter	Each	300.00	L	177.6	119.00	L	330.00	L	177.3	
		1000.00	H	81.8	591.75	H	1100.0	H	86.0	
5. Generators/Dynamo.	..	245.00	L	122.0	122.00	L	270.00	L	121.3	
		800.00	H	82.2	471.92	H	880.00	H	86.5	

ANNEXURE H—contd.

I	10	11	12	13	14	15	16	17
6. Distributors	Each	170.00 L 199.52 H	240.4 251.6	54.00 58.00	L H	187.00 220.00	L H	246.3 279.3
7. Regulators	Each	75.00 L 125.00 H	139.0 131.5	35.00 59.00	L H	83.00 138.00	L H	137.1 133.9
8. Head Lamp	Each	100.00 L 125.00 H	212.7 188.3	33.00 45.00	L H	110.00 138.00	L H	233.3 206.7
9. Propeller Shaft.	Each	180.00 L 687.00 H	200.0 70.5	70.00 428.00	L H	186.00 783.00	L H	165.7 82.9
10. Brakes								
11. Wheels		45.00 L 340.00 H	123.1 12.6	25.00 302.00	L H	60.00 465.00	L H	140.0 54.0

ANNEXURE H—contd.

Ancillary Components	Unit No./Ssl./Dz.etc.	As on January 1971					As on January 1972				
		Original Equip-ment and Prices (O.E.)	Low (L) and High (H)	Replace-ment Prices (R.P.)	Low (L) and High (H)	% difference in R.P. over O.E. prices	Original Equip-ment and Prices (O.E.)	Low (L) and High (H)	Replace-ment Prices (R.P.)	Low (L) and High (H)	% difference in R.P. over D.E. prices
1	2	3	4	5	6	7	8	9	10	11	12
1. Oil Lubricating Pump
2. Clutch Assembly
3. Radiators
4. Starter
5. Generators/Dynamo
6. Distributors
7. Regulators

List prices are not available.

1. Oil Lubricating Pump 38.14 L 135.00 L 254.0 40.47 L 142.00 L 250.9

2. Clutch Assembly 300.00 H 525.00 H 75.0 300.00 H 525.00 H 75.0

3. Radiators 210.00 L 210.00 L

4. Starter 509.00 H 970.00 H 90.6

5. Generators/Dynamo 153.00 L 330.00 L 115.7

6. Distributors 649.00 H 1100.00 H 69.5

7. Regulators 155.00 L 270.00 L 74.2

ANNEXURE H—concl.

1	2	3	4	5	6	7	8	9	10	11
8. Head Lamp	. . . . Each	37-00 47-00	L H	110-00 138-00	L H	197-3 193-6	....	....	....	....
9. Propeller Shaft.	. . . . Each	70-00 428-00	L H	186-00 783-00	L H	165-7 82-9	72-00 447-00	L H	196-00 823-00	L H
10. Brakes	. . . .	List prices are not available.								
11. Wheels	. . . .	25-00 302-00	L H	65-00 465-00	L H	160-0 54-0	32-00 425-00	L H	70-00 650-00	L H
										118-8 52-9

Source.—Replies to the questionnaire furnished less by the ancillary producers.

ANNEXURE I

(Vide paragraph—6.3)

Automobile ancillary items which are reserved for exclusive development in the small scale sector

1. Automobile Radiators.
2. Electric Horns.
3. Exhaust Mufflers.
4. Auto Leaf Springs.
5. Truck Body Building (Wooden Structure).
6. Grease Nipples and Grease Guns.
7. Fuel Tank Caps.
8. Fuel Lines (Low Pressure)
9. Wiring Harness.
10. Tail Lamp Assembly.
11. Side Lamp Assembly.
12. Stop Lamp Assembly.
13. Spot Light Assembly.
14. Horn Buttons.
15. Wind Shield Wipers (Arms & Blades).
16. Electrical fuses.
17. Electrical Fuse Boxes.
18. Bulb Horns
19. Seats for Bus & Trucks.
20. Ornamental fittings.
21. Rear View Mirrors.
22. Sun Shades.
23. Sun Visors.
24. Luggage Carriers.
25. Ash Trays.
26. Battery Cables & Fittings
27. Hub Caps.
28. Spokes and Nipples.
29. Steering Wheels.
30. Tyre Inflators (both hand and foot operated).
31. Battery Cell Testers.

Garage Equipment

32. Armature Testers.
33. Battery Terminal Lifters.
34. Condensor and Resistance Testers.
35. Fender Spoons and Hammers.
36. Feeler Gauges.
37. Flaring Tools.
38. Gear Flushers.
39. Pullers of all types.
40. Ring Expanders.
41. Ring Compressors.
42. Screw Extractors.
43. Spark Plug Testers & Cleaners.
44. Stud Removers (Extractors).
45. Toe in Gauges.
46. Tyre Valve pull-out tools.
47. Tube Cutters.
48. Flanging Tools.
49. Valve Lifters.
50. Valve Replacing equipments.
51. Camber Testing equipments.

Source —Development Commissioner, Small Scale Industries.

नमो भगवते वासुदेवाय

ANNEXURE J
(Vide paragraph 7.1)
Import of certain automobile ancillaries from 1967-68 to 1971-72.

Item	Unit of Quantity	1967-68		1968-69	
		Quantity	Value in Rs.	Quantity	Value in Rs.
1	2	3	4	5	6
1. Piston Assemblies	Kg.	21,620	7,10,283	N.A.	10,61,312
2. Piston Assemblies of Petrol engine	"	49,024	15,05,170	N.A.	10,79,825
3. Piston Ring	"	52,525	12,92,133	N.A.	24,53,782
4. Piston Ring of Petrol engine	"	67,923	11,99,543	N.A.	8,65,138
5. Pistons	"	49,489	17,26,964	N.A.	23,31,474
6. Pistons of Petrol engine	"	20,188	4,87,123	N.A.	6,21,415
7. Fuel Nozzle	"	8,572	4,87,199	4,308	3,37,628
8. Other parts of fuel injection equipment	"	70,034	24,54,711	49,736	25,26,619
9. Valves (inlet-exhaust)	"	24,050	6,45,781	N.A.	6,02,423
10. Valves (inlet-exhaust of petrol engine)	"	56,549	10,75,313	8,605	3,16,324
11. Other component parts of petrol engine	"	12,10,347	1,70,80,293	6,08,973	1,03,13,634
12. Component part of Diesel Engine	"	10,72,632	2,40,45,482	12,39,730	2,43,46,478
13. Crank Transmission	"	11,500	3,30,468	74,411	12,76,048
14. Crank Transmission Petrol engine	"	9,208	89,417	6,668	2,02,715
15. Automobile Lights Equipment	"	N.A.	2,21,075	N.A.	6,46,990
16. Head lamp complete	No.	1,284	24,881	593	15,858

ANNEXURE J—*contd.*

1	2	3	4	5	6
17. Horns	.	.	.	.	.
18. Wind Screen Wiper Defrosters etc.	.	.	.	.	.
19. Automotive Electrical equipment Distributor	.	.	.	.	.
20. Generator Dynamo etc.	.	.	.	.	.
21. Ignition Coil	.	.	.	.	.
22. Sparking plug	.	.	.	.	.
23. Starter Motor	.	.	.	.	.
24. Other Ignition equipment	.	.	.	.	.
25. Motor Vehicle replacement Parts	.	.	.	.	.
26. Bodies chassis etc.	.	.	.	.	.
27. Motor control gear, Motor starter D.C. Motor	.	.	.	.	.
28. Spring and spring leaves	.	.	.	.	.
29. Taximeter	.	.	.	.	.
	No.				
	1,875		84,322	N.A.	2,57,134
	6,224		96,546	N.A.	1,61,294
	1,067		51,892	1,100	48,267
	1,312		3,96,068	N.A.	13,35,449
	2,361		1,32,566	N.A.	1,37,014
	3,67,429		1,60,970	5,03,786	1,90,733
	259		1,08,044	N.A.	4,85,533
	2,82,457		67,98,445	N.A.	46,73,449
	7,15,285		1,74,41,676	N.A.	75,20,196
	42,52,009		6,91,30,396	N.A.	2,13,90,510
	368		1,24,207	N.A.	4,78,583
	3,194		60,306	1,664	39,141
	57		18,852	8	1,712

Source.— Monthly statistics of the Foreign Trade of India.

ANNEXURE J—*contd.*

Item	Unit of quantity	1969-70		1970-71		1971-72	
		Quantity	Value in Rs.	Quantity	Value in Rs.	Quantity	Value in Rs.
1	2	7	8	9	10	11	12
1. Piston Assemblies	Kg.	N.A.	5,52,782	23,711	16,86,627	25,385	10,24,703
2. Piston Assemblies of Petrol engines	"	N.A.	2,77,036	6,590	2,88,392	25,229	3,71,058
3. Piston Ring	"	N.A.	11,31,914	71,080	24,62,850	48,474	21,04,889
4. Piston Ring of Petrol engine	"	N.A.	3,49,454	8,674	5,52,470	27,255	15,46,751
5. Pistons	"	N.A.	5,33,107	20,308	8,85,811	76,564	17,20,713
6. Pistons of Petrol engine	"	N.A.	2,76,807	6,527	3,36,670	24,159	12,04,709
7. Fuel Nozzle	"	N.A.	4,86,510	8,081	9,02,851	4,409	1,00,779
8. Other parts of fuel injection equipment	"	N.A.	37,37,294	39,799	29,46,897	70,161	49,95,451
9. Valves Inlet-exhaust	"	N.A.	4,99,814	69,933	11,03,729	32,899	9,12,682
10. Valves Inlet-exhaust of petrol engine	"	N.A.	2,01,889	26,262	5,24,985	53,913	12,74,365
11. Other component parts of petrol engine	"	N.A.	50,27,588	3,14,702	62,65,327	3,66,190	80,30,691
12. Component part of Diesel Engine	"	N.A.	2,21,63,073	10,29,314	2,90,34,018	11,81,500	3,54,16,474
13. Crank Transmission	"	N.A.	16,18,612	55,626	13,29,337	1,07,482	19,92,754
14. Crank Transmission Petrol engine	"	N.A.	3,60,228	11,472	2,24,047	17,520	4,91,755
15. Automobile Lights Equipment	"	N.A.	3,30,113	N.A.	43,654	N.A.	12,578
16. Head lamp complete	No.	N.A.	78,002	Not given	Not given	Not given	Not given

ANNEXURE J—concl'd.

1	2	7	8	9	10	11	12
17. Horns	No.	N.A.	50,946	4,520	62,619	6,068	1,53,508
18. Wind Screen Wiper Defrosters etc.	"	N.A.	7,262	3,024	73,924	7,612	99,017
19. Automobile Electrical equipment Distributor	"	N.A.	56,068	1,027	3,483	13,600	27,868
20. Generator Dynamo etc.	"	N.A.	2,20,683	543	8,68,452	4,561	17,74,410
21. Ignition Coil	"	N.A.	60,928	13,767	3,95,713	20,794	2,31,196
22. Sparking Plug	"	N.A.	1,93,042	4,10,025	2,50,214	6,11,642	5,44,291
23. Starter Motor	"	N.A.	77,588	1,417	2,73,622	275	1,47,460
24. Other Ignition equipment	"	N.A.	24,61,641	3,93,038	62,72,530	95,269	25,05,317
25. Motor Vehicle replacement Parts	Kg.	N.A.	59,88,204	2,58,609	68,61,547	7,21,999	1,32,75,623
26. Bodies chassis etc.	"	N.A.	1,82,66,107	8,82,083	2,47,16,378	11,88,844	1,96,52,039
27. Motor control gear, Motor starter D.C. Motor	No.	N.A.	70,145	21	1,49,377	89	4,19,803
28. Spring and spring leaves	Kg.	348	7,845	149	5,215	1,185	48,360
29. Taximeter	No.	20	4,456	Not given		2	535

Source 1.—Monthly statistics of the Foreign Trade of India.

ANNEXURE K

(Vide paragraph 7.2.2)

Chart showing indigenisation of certain specified Automobile ancillaries.

Components both finished and semi-finished which are not likely to be produced in the country within the next five years. Components both finished and semi-finished which are partly being imported owing to inadequate production or non-availability of the requisite designs and specifications, or lack of volume of requirement. Components which are being manufactured in the country in the requisite quantities

Group	Components	Group	Components	Group	Components
1	2	3	4	5	6
1. Engine . .	..	1. Engine	1. Crankshaft 2. Valves 3. Valve springs 4. Timing gears 5. Thin-wall bearings 6. Cylinder liners 7. Valve tappets	1. Engine	1. Rubber mountings. 2. Cam-shaft 3. Connecting Rod. 4. Manifolds 5. Fly Wheel 6. Oil pump 7. Oil filters

ANNEXURE K—contd.

1	2	3	4	5	6
			8. Bushing other than oil impregnated.		8. Gaskets.
			9. Bushings oil impregnated.		
			10. Cylinder block and head.		
2. Clutch	2. Clutch	Clutch housing	Clutch	..
3. Transmission	..	3. Transmission.	1. Transmission gear and gear box.	Transmis- sion.	1. Rubber mountings.
4. Cooling	4. Cooling	..	Cooling	1. Hose pipes with connections (other than fuel line hoses). 2. Radiator. 3. Fan belt. 4. Water Pump 5. Fan.
5. Fuel	5. Fuel	1. Carburettor 2. Fuel Pump diaphragm. 3. Fuel Pumps.	5. Fuel	1. Petrol tanks 2. Fuel line hoses with connections. 3. Air Cleaners.

6. Electrical	..	6. Electrical	1. Head lamps including sealed beams.	6. Electrical	1. Starting Motors 2. Generators 3. Wire harness 4. Distributors 5. Lamp other than head lamp. 6. Horn 7. Horn not otherwise specified. 8. Battery and other cables made to size. 9. Sparking plugs not otherwise specified. 10. Windshield wipers 11. Direction indicators 12. Fuses 13. Switches 14. Voltage & current regulators. 15. Ignition coils.
7. Exhaust	..	7. Exhaust	..	7. Exhaust	1. Exhaust pipe 2. Mufflers 3. Tail pipes.



ANNEXURE K—*contd.*

1	2	3	4	5	6
8. Propeller shaft with universal joints.	..	8. Propeller shaft with universal joints.	..	8. Propeller shaft with universal joints.	1. Propeller shafts. 2. Universal joints including needles bearing therefor.
9. Suspension front including shock absorbers & springs.	..	9. Suspension front including shock absorbers & springs.	1. Front axle	9. Suspension front including shock absorbers & springs.	1. Front suspension excluding coil springs. 2. Suspension coil springs.
10. Rear axle including shock absorbers and wheel hubs and axle	..	10. Rear axle including shock absorbers and wheel hubs and axle.	1. Rear axle assembly (axle housing, axle shaft) etc. 2. Roller bearings.	10. Rear axle including shock absorbers & wheel hubs and axle.	..
11. Steering	..	11. Steering	1. Steering mechanism	11. Steering	1. Sprockets.
12. Brakes with brake drums	..	12. Brakes with brake drums.	..	12. Brake with brake drums.	1. Hubs and Brake drums. 2. Brake hose pipes. 3. Brake cylinders.
13. Wheels	..	13. Wheels	..	13. Wheels	1. Pressed wheel.

- | | | | |
|---------------------------|----|---------------------------|--|
| 14. Frame & chassis | .. | 14. Frame & chassis. | 1. King pins.
2. Shackle pins.
3. Shock absorbers.
4. Spring hanger brackets.
5. Shackles.
6. Rubber components not otherwise specified. |
| 15. Body with upholstery. | .. | 15. Body with upholstery. | 1. Carpets (made to size or shape.)
2. Cushion springs
3. Door and window fittings excluding glass.
4. Trim materials (leather, plastic, jute canvas & leather cloth) made to size or shape.
5. Bus bodies
6. Station wagon Bodies
7. Truck bodies
8. Steel cabs for lorries.
9. Pick up bodies
10. Parcel van bodies
11. Seat runners
12. Short members of chassis frame and brackets. |



Source : Directorate General of Technical Development

ANNEXURE K—concl'd.

1	2	3	4	5	6
16. Instrumentation	..	16. Instrumentation.		16. Instrumentation.	13. Toughened glass sheets 14. Body panels including turret tops and sides for passenger motor cars including taxi cabs. 15. Bumpers. 16. Instrumentation. 1. Electrical Panel instruments. 2. Panel instruments other than electrical.



ANNEXURE L

(Vide paragraph 7.3.2)

Statement showing Country-wise export of Automobile Components

(Excluding Complete Vehicles, Tyres, Tubes, Batteries, and General Hard ware Stores

(Value in Rs.)

Country	1967-68	1968-69	1969-70	1970-71	1971-72
Abu Dhabi	.	26,150	27,480	43,250	215,224
Aden	.	..	458,747	468,495	419,806
Afghanistan	.	136,115	989,529	1,192,888	871,299
Australia	.	607,350	20,968	82,993	228,943
Bahamas	.	15,935	..	7,600	..
Bahrain	.	425	58,774	60,086	171,534
Barbados	.	4,180	..	3,039	..
Belgium	.	95,678	8,291	6,276	23,338
Br. Guiana
Bulgaria	.	271,212	228,605	543,732	614,947
Burma	.	28,423	162,907	60,157	45,206
Canada	.	2,526	8,039	19,813	16,217
Ceylon (Shri Lanka)	.	547,532	1,920,883	3,810,208	13,535,702
Cyprus	.	650	10,729	68,865	61,467
Czechoslovakia	.	41,409	24,080	..	4,595
Denmark	.	2,427	70,185	95,820	8,660
Ethiopia	.	11,336	23,144	75,902	85,562

ANNEXURE L—*contd.*

Country	1967-68	1968-69	1969-70	1970-71	1971-72
Finland	446	..	..	..	..
Fiji	..	..	40,614	11,345	45,208
Formosa	..	..	..	..	7,553
France	8,380	10,264	2,166	4,828	67,568
Germany-GDR	508,095	435,490	..	900	..
Germany-FRG	683,272	1,405,290	763,609	704,075	11,179,169
Ghana	187,096	691,893	393,053	546,178	832,538
Greece	135	4,500	79,687	65,291	198,240
Holland	7,389	14,678	16,209	56,525	1,105,040
Hongkong	47,929	950	19,496	255,389	198,618
Hungary	..	..	..	50,700	16,600
Iceland	..	..	440	..	..
Indonesia	..	144,766	177,337	242,514	41,315
Iran	1,061,293	2,353,757	1,923,081	2,564,692	1,577,592
Iraq	130,282	313,083	615,579	530,740	1,463,906
Ireland	..	477	..	..	..
Italy	14,042	418,015	799	6,650	168,800
Jamaica	1,176	58,395	44,262	21,408	20,109
Japan	317,895	6,077	8,355	7,528	1,564
Jordan	13,847	72,496	96,063	106,461	145,362
Kenya	508,867	816,244	1,228,504	1,586,085	1,909,969
Kuwait	134,298	587,962	682,092	761,018	1,272,219

Lebanon	.	.	.	.	8,475	60,631	152,196	134,865	447,385
Liberia	.	.	.	.	..	..	..	4,000	..
Libya	.	.	.	.	12,150	66,279	197,341	87,008	380,948
Madagaskar	.	.	.	.	2,963	..	..	..	..
Malawi	.	.	.	.	3,461	21,174	27,212	47,669	36,473
Malaysia	.	.	.	.	230,026	125,229	369,052	811,152	704,575
Malta	.	.	.	.	..	43,257	30,291	143,582	285,677
Mauritius	.	.	.	.	11,515	100,624	97,102	138,683	157,361
Muscat & Oman	.	.	.	.	23,754	6,175	7,640	34,483	101,354 (excluding Oman)
Nepal	.	.	.	.	..	2,181	500	1,586	..
New Zealand	.	.	.	.	19,845	31,262	..	19,897	289,478
Nigeria	.	.	.	.	118,401	669,955	978,657	3,595,464	5,445,833
Norway	.	.	.	.	..	11,439	..	..	..
Panama	.	.	.	.	416	1,674	4,496	..	7,204
Philippines	.	.	.	.	404,658	1,415,726	884,031	1,218,614	2,154,777
Poland	.	.	.	.	1,650	237,562	8,376	100,653	1,315,995
Puerto Rico	.	.	.	.	..	..	1,882	3,144	..
Qatar	.	.	.	.	10,437	22,061	27,380	164,801	665,352
Saudi Arabia	.	.	.	.	168,703	261,739	465,509	1,703,288	1,785,770
Seychelles	.	.	.	.	240	902	..	..	..
Sierra Leond	.	.	.	.	..	7,858	..	28,994	72,475
Singapore	.	.	.	.	1,122,640	2,318,648	2,908,431	5,771,530	5,238,367

ANNEXURE I—concl'd.

	1	2	3	4	5	6
Somaliand	.	.	966	3,720	13,278	4,294
Spain	.	.	135	3,440	12,468	164,819
Sudan	.	.	1,325,947	2,464,750	2,832,379	2,697,132
Sweden	.	.	9,038	34,615	13,240	..
Swasirland	2,675
Switzerland	.	.	45,658	29,853	28,487	43,375
Syria	.	.	15,946	166,036	290,909	111,460
Tanzania	.	.	392,171	933,748	855,002	1,189,211
Thailand	.	.	339,928	380,732	427,359	592,159
Trinidad	.	.	3,207	13,086	..	6,382
T. Oman	.	.	14,513	140,062	411,098	361,498
Turkey	.	.	820	..	318	9,579
Uganda	.	.	132,597	427,405	404,505	853,463
U.A.R. (Egypt)	.	.	148,388	5,220,572	14,442,405	12,922,298
U.K.	.	.	901,306	2,447,037	3,769,375	2,016,897
U.S.A.	.	.	271,730	618,016	661,151	251,261
Virgin Island	603	..
Yugoslavia	.	.	873,962	593,211	924,002	3,623,948
Zambia	.	.	14,890	21,261	43,491	20,810
TOTAL	.	.	1,20,20,176	31,660,086	41,394,233	52,930,431
						79,040,066

Source.— Automobile Ancillary Industry—1968, 1970, 1971, 1972—Published by the All India Automobile & Ancillary Industries Association.

ANNEXURE M

(Vide paragraph 7.3.2)

Statement showing exports of certain important ancillaries

(Value in Rs. 000)

Items	Unit of quantity	1969-70		1970-71 (April-Sept. 70)		1971-72		1972-73 (April-Sept. 72)	
		Quan- tity	Value	Quan- tity	Value	Quan- tity	Value	Quan- tity	Value
1	2	3	4	5	6	7	8	9	10
<i>A. For Diesel Engine</i>									
1. Bearings other than ball, roller, needle.	Kg.	3,842	155	2,974	134	51	13	239	134
2. Crank Transmission	Kg.	2,680	12	43,340	210	36,344	1,683	2,056	100
3. Valves inlet exhaust	Tonnes	251	2,293	129	744	12	5,717	48	2,379
4. Pistons	Tonnes	14	318	..	..	6	729	20	1,975
5. Piston rings	Tonnes	8	430	1	85	20	5,765	1	384
6. Fuel nozzle	Kg.	..	..	156	11	1,058	392	1,069	303

ANNEXURE M—concl'd.

1	2	3	4	5	6	7	8	9	10
7. Components, Parts of Diesel Engines for Motor vehicles.	Tonnes	375	5,502	62	2,315	315	74,556	133	5,558
B. For Petrol engines									
8. Bearing other than Ball-roller needle	Kg.	..	..	1120	41	1927	780	33 093	1162
9. Crank Transmission	Kg.	..	..	9,328	32	300	117	..	..
10. Piston rings	Kg.	2,918	83	..	..	29,235	3,022	..	..
C. Electrical									
11. Generators including Magnet Dynamo.	Nos.	..	..	350	82	3	180	12	135
12. Ignition Coils	..	..	..	..	..	2,000	294	..	..
13. Spark Plugs	'000 Nos.	1,051	234	..	..	..	..	..	..
14. Starter Motors	Nos.	3,540	856	2,134	368	335	729	920	1020
15. Head Lamp complete	Nos.	787	6	..	..	600	182	..	..
16. Horns	'000 Nos.	11	189	6	110	7	1,452	3	672

Source.—Trade Development Authority

ANNEXURE N

(Vide paragraph 7.3.4)

Automobile ancillaries under Export obligation

- (a) Piston, piston rings and gudgeon pins.
- (b) Crankshafts.
- (c) Connecting rods.
- (d) Radiators.
- (e) Car wheels.
- (f) Gaskets.
- (g) Electrical equipment for automobiles.
- (h) Brake lining and clutch facing.
- (i) Shock absorbers.
- (j) Leaf springs.
- (k) Engine valves.
- (l) Fuel, air and oil filters.
- (m) Diesel Fuel injection equipment.



Source.—Import Trade Control Policy (Red Book) Vol. I Section V
Appendix 10.

ANNEXURE O

(vide paragraph 7.3.4)

Details of Export Incentives Allowed on Automobile Ancillaries and Accessories as per Red Book Vol. II

Sl. No.	Description of item	Import replenishment allowed	Ca Assis
A-136.3	Automobile ancillaries accessories	20%	10
A-136.4	Brake linings	20%	10
A-136.5	Clutch facings	20%	10
A-136.6	Commutators for all types of vehicles (Self starters) and Dynamos, Field coils for all types of vehicles, Dynamo Armatures for various types of vehicles, self starter armature for various types of vehicles, Plunger armature for various types of vehicles.	40%	10
A-136.7	Dash Board Instruments	20%	10
A-136.8	Automobile wheels	50%	10
A-136.9	Flexible shafts for Speedometers	20%	10
A-136.10	Horns, Electrical	40%	10
A-136.11	Hydraulic brake parts, master cylinder repair kits	20%	10
A-136.12	King pins	20%	10
A-136.13	Laminated Springs	50%	10
A-136.14	Oils seals	40%	10
A-136.15	Radiators including water and oil coolers used as radiators	50%	10
A 136.16	Sealed beams (Head-lights)	20%	10
A-136.17	Shock absorbers	20%	10
A-136.19	Taxi meters	20%	10
A-136.20	Trailers	10%	10
A-136.21	Universal Joints	20%	10
A-136.22	Gaskets all types	50%	N.O.
A-136.24	Filter and Filter elements	50%	N.O.
A-136.26	Automobile Tyre Tube valves (brass)	50%	